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January 28, 2002

VIA E-MAIL AND MESSENGER

Renata B. Hesse
Antitrust Division
U.S. Department of Justice
601 D Street NW
Suite 1200
Washington, DC 20530-0001

Re: Microsoft Settlement: *United States v. Microsoft Corp.*, No. 98-1232 Tunney Act proceedings

Dear Renata:

Enclosed please find the following comments on the settlement:

(1) Comments of Computer & Communications Industry Association on the Revised Proposed Final Judgment;

(2) Declaration of Joseph E. Stiglitz and Jason Furman; and

(3) Declaration of Edward Roeder.

Thank you for your assistance. Please feel free to call my Washington colleague, David Gossett (202-263-3384) or me if you have any questions.

Hope all is well with you. It's a long way from the ELQ days.

Sincerely,

Donald Falk/pmc

Donald M. Falk

Enclosures

**BEFORE THE UNITED STATES DEPARTMENT OF JUSTICE**

| | |
|---|---|
| UNITED STATES OF AMERICA<br><br>Plaintiff,<br><br>v.<br><br>MICROSOFT CORPORATION,<br><br>Defendant. | Civil Action No. 98-1232 (CKK)<br>United States District Court for the District of Columbia |
| STATE OF NEW YORK *ex rel.* Attorney General ELIOT SPITZER, *et al.*,<br><br>Plaintiffs,<br><br>v.<br><br>MICROSOFT CORPORATION,<br><br>Defendant. | Civil Action No. 98-1233 (CKK)<br>United States District Court for the District of Columbia |

# COMMENTS OF COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION ON THE REVISED PROPOSED FINAL JUDGMENT


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## INTEREST OF THE COMMENTER

The Computer & Communications Industry Association ("CCIA") is an association of computer, communications, Internet and technology companies that range from small entrepreneurial firms to some of the largest members of the industry. CCIA's members include equipment manufacturers, software developers, providers of electronic commerce, networking, telecommunications and on-line services, resellers, systems integrators, and third-party vendors. Its member companies employ nearly one million persons and generate annual revenues exceeding $300 billion. CCIA's mission is to further the interests of its members, their customers, and the industry at large by serving as the leading industry advocate in promoting open, barrier-free competition in the offering of computer and communications products and services worldwide. CCIA's motto is "Open Markets, Open Systems, Open Networks, and Full, Fair and Open Competition," and its website is at www.ccianet.org.

For nearly 30 years, CCIA has supported antitrust policy that ensures competition and a level playing field in the computer and communications industries. That involvement antedates the founding of Microsoft, much less its acquisition of its first monopoly and its refinement of anticompetitive techniques. CCIA supported the Tunney Act in the 1973 congressional hearings preceding the enactment of that legislation, and played active roles on the side of competition in other significant antitrust cases, including those against AT&T and IBM. Before participating as *amicus curiae* at the trial and appellate stages of the current Microsoft case, CCIA participated as a leading *amicus curiae* in the proceedings examining the last Microsoft consent decree in 1994-1995, both in the district court and in the court of appeals. As a consequence, CCIA and its members are intimately familiar with the shortcomings of that decree, and its failure to

prevent or deter Microsoft from continuing on an anticompetitive course. Microsoft's conduct in the intervening years, including the period while this case has been litigated, has only sharpened CCIA's awareness of Microsoft's dedication to driving out competition from as many aspects of the computer-software and related industries as possible. Microsoft may repeat its attempts to mischaracterize CCIA as a mere voice for competitors, but that innuendo cannot withstand scrutingy in light of the diversity of CCIA's membership now and over the years, combined with CCIA's 30 years of vigorous commitment to supporting openness and competition in the computer technology and communications industries. In hopes that a meaningful remedy in this case will prevent Microsoft from further expanding the scope of its monopoly, and with the certainty that the current Revised Proposed Final Judgment ("RPFJ") falls far short of that task, CCIA submits this analysis of the RPFJ in conjunction with the economic analysis of Nobel laureate Joseph Stiglitz and his colleague Jason Furman, and the Declaration of Edward Roeder.

## INTRODUCTION

The Tunney Act was designed to constrain the Department of Justice ("DOJ") from entering into settlements that provided DOJ with an exit from an antitrust case but did not provide the public with a remedy commensurate with the defendant's antitrust violations. The Revised Proposed Final Judgment (RPFJ) in this case does not provide adequate relief for the extensive and thoroughly proven antitrust violations it purports to remedy.

Review of the RPFJ in this case should be especially searching because there can be no doubt about Microsoft's liability. For the first time in the history of the Tunney Act, the Court will review a proposed settlement reached after liability has been not only

imposed, but unanimously affirmed on the government's most sweeping and economically significant theory. That clear-cut liability, and the voluminous Findings of Fact and trial record, place the Court in this case in a different position from courts reviewing pre-trial settlements.

Because there is no litigation risk on liability, the Court is uniquely situated to evaluate any asserted litigation risk as to remedy. Established principles of antitrust relief provide the Court in this case with concrete, recognized standards to ensure that the settlement serves the public interest in a way that courts reviewing pre-trial settlements cannot. Magnifying the need for close measurement of the RPFJ by objective principles is Microsoft's silence, in its filing under 15 U.S.C. § 16(g), about its effort to truncate this case by a lobbying campaign of unprecedented scope directed at the Executive and Legislative Branches alike — despite extensive public reports of that lobbying. Microsoft's effort to deny the obvious gives rise to an inference that it has something to hide.

The terms of the RPFJ provide the strongest reason for close scrutiny, because they cannot withstand analysis. The RPFJ would not provide a meaningful remedy for Microsoft's extensive campaign of exclusionary acts. That campaign suppressed the most serious threat to Microsoft's monopoly in the past decade, and not only prevented the erosion of the applications barrier to entry that insulates the monopoly, but increased the bar to new competition. The RPFJ ignores some of the most significant holdings of the court of appeals, however, including its separate imposition of liability for Microsoft's commingling of middleware code with the code for the Windows operating system.

More fundamentally, the RPFJ misses the point of Microsoft's illegal conduct, which was to prevent erosion of the applications barrier to entry by preventing middleware from attracting software *developers* to the middleware application programming interfaces ("APIs"). The RPFJ's basic premises, moreover, ignore the current economic and technical realities of the computer and software markets. In the seven years since Microsoft began the illegal conduct at issue in this case, Microsoft has strengthened its operating systems monopoly. The Internet browser, formerly a threat to that monopoly, has become an adjunct to it, with Microsoft's 91% share of that product adding further insulation to the operating systems monopoly. Microsoft's unadjudicated monopoly over personal productivity applications — a key to the applications barrier to entry in the operating systems market — likewise has grown in market share and market power.

But the RPFJ does not try to deprive Microsoft of any of the benefits of its illegal activity directed at the browser and other middleware. DOJ's remedial theory rests entirely on unidentified future middleware threats. In fact, there are no technologies today presenting a threat as intense as that presented by the Netscape browser and Java, and the duration of the RPFJ is so short that it almost certainly will expire before any significant new threats materialize.

Aside from some restrictions on commercial retaliation that at best might keep matters from getting worse, the RPFJ relies on two sets of putative obligations to achieve a more competitive market. But neither the provisions aimed at original equipment manufacturer ("OEM") flexibility nor those addressing information disclosure requirements in fact require anything competitively meaningful. In large part, these

provisions replicate Microsoft's current business practices respecting the disclosure of technical information and the configuration of end-user access to middleware products.

The OEM flexibility sections in RPFJ §§ III(C) and III(H) are literally superficial, principally addressing desktop icons rather than the middleware code itself, which contains the APIs relied on by software applications developers. Even if successful, the flexibility provisions would not affect the applications barrier to entry. Moreover, these provisions largely restate current business practices or provide OEMs with flexibility that both Microsoft and DOJ understand from experience will never be exercised. OEMs have little or no incentive to exercise their options; if they decline to do so, then the flexibility provisions will have no competitive consequences for the industry.

The RPFJ's information disclosure sections (§§ III(D) and III(E)) are so transparently insubstantial as to cast doubt on the entire proposal. The purported disclosure requirements trace back to definitions that are committed to Microsoft's control, are circular, or simply do not exist. Neither DOJ nor any other objective observer could have any idea precisely which APIs or protocols must be disclosed.

The RPFJ's provisions and definitions are so vague that only two practical results are possible. Either everyone will simply ignore the decree, which plainly would not be in the public interest for an antitrust remedy, or the Court will have to take primary responsibility for defining its terms during enforcement proceedings. DOJ's answer seems to be to let Microsoft set the terms of its obligations: the RPFJ gives the defendant "sole discretion" to define the decree's most important term, "Windows Operating System Product," which appears 46 times to delimit the RPFJ's 10 substantive provisions.

Indeed, much of DOJ's Competitive Impact Statement ("CIS") seems to reflect an understanding that the RPFJ is inadequate in several critical respects. The CIS defines terms not defined in the RPFJ, exaggerates the scope of certain RPFJ provisions, and redefines other terms in order to minimize the impact of some of the broad exemptions in the RPFJ. It is the RPFJ that the Court would have to enforce, however, as the CIS is not part of the contract between DOJ and Microsoft.

In sum, although the RPFJ's provisions superficially seem to restrict Microsoft's practices, there is no substance behind them. The provisions accomplish little beyond laying down criteria for Microsoft to follow in order to avoid any interference with its continuing campaign of illegal monopolization.

The terms of the RPFJ, as much as the circumstances of the settlement, strongly suggest that Microsoft and the Department of Justice shared a desire to end this case, rather than to provide an effective remedy for Microsoft's substantial antitrust violations. The 1995 consent decree with Microsoft produced uninterrupted illegal monopolization, prompting the filing of this case in 1998. The Court can expect the same with this decree. The RPFJ, if approved, might temporarily end DOJ's involvement, but would not provide the type of remedy that the public interest and the Tunney Act demand. To the contrary, because the harm to the competitive process caused by Microsoft's adjudicated illegal conduct is certain, a remedy that masks but does not cure that harm affirmatively injures the public interest, and therefore should be rejected.

### A. Liability Rests On Microsoft's Suppression Of Middleware Threats That Threatened To Erode The Applications Barrier To Entry

This case is about Microsoft's devastatingly thorough suppression of threats to its Windows operating system ("OS") monopoly by "middleware." That monopoly was

insulated from competition by the applications barrier to entry described by the court of appeals and the CIS. See *United States* v. *Microsoft Corp.*, 253 F.3d 34, 55-56 (D.C. Cir. 2001) ("*Microsoft III*"); CIS 10-11, 66 Fed. Reg. 59,452, 59,462 (2001). See also Declaration of Joseph E. Stiglitz & Jason Furman 7-9 ("Stiglitz/Furman Dec.") (attached). The middleware at issue in this case exposed APIs that could be used by software applications developers to write programs that did not rely on the underlying Windows operating system. As Microsoft recognized, if developers embraced non-Microsoft middleware APIs and designed their products to run on that middleware rather than directly on an operating system, "middleware" of this kind "would erode the applications barrier to entry," as "applications * * * could run on any operating system on which the middleware product was present with little, if any, porting." *Microsoft III*, 253 F.3d at 55. The threat that "middleware could usurp the operating system's platform function," *id.* at 53, prompted Microsoft's anticompetitive conduct.

But non-Microsoft middleware can become a competing platform only if developers write software that calls on the non-Microsoft middleware APIs. Most developers will create software only to run on platforms that are distributed widely enough for the developers to be reasonably certain that the APIs (on which their programs rely) will be present on most, if not all PCs. Likewise, if developers can be certain that Microsoft's middleware APIs are present on all PCs, this will strongly influence their initial decision as to whether it is worth the effort to write applications to alternative, non-Microsoft middleware APIs.

The successful theory of the case — proved and accepted by two courts — is that Microsoft engaged in an "extensive campaign of exclusionary acts" that were designed

"to maintain its monopoly" by suppressing middleware threats posed by the Netscape Navigator Internet browser and the cross-platform Java technologies. CIS 9, 66 Fed. Reg. 59,462; *Microsoft III*, 253 F.3d at 53-56, 60-62, 74-78. Microsoft's response to this threat guaranteed that developers would not use the APIs of competing middleware, destroying the platform threat.

Because Microsoft has a monopoly over the OS, it can ensure that its own versions of a middleware product have universal distribution, so that Microsoft's middleware APIs will be present on all PCs. For example, because Windows is both an operating system and a distribution channel for Microsoft's technologies, Microsoft could and did ensure that the code for its Internet Explorer ("IE") browser was distributed to every PC.

Ensuring that the code for Microsoft middleware was on every PC accomplished two related goals. First, it guaranteed instant and unassailable ubiquity for the Microsoft version of the middleware and the middleware APIs on which developers rely. Second, the forced ubiquity of Microsoft middleware prevents competing middleware from achieving ubiquity, or anything like it, because few distribution channels will incur the support and other costs of distributing two versions of the same functionality. A key theory of the case is that the applications barrier to entry could have been eroded only if *developers* chose and used alternative middleware platforms on which to write software. End-user access to middleware was significant only to the extent it influenced *developers'* choices to write to the APIs of that middleware.

Thus, ensuring that the code for the Microsoft version of middleware is on every PC destroys the competitive threat presented by the competing middleware's APIs, since

few developers will use them in preference to Microsoft middleware APIs that are certain to be ubiquitous. This fact provides the essential context for any meaningful analysis of the information disclosure and OEM flexibility provisions of the RPFJ.

### B. The RPFJ Does Not Prevent Microsoft From Abusing Its Position And Does Not Meet Basic Standards For An Antitrust Remedy

The D.C. Circuit set out a simple standard for measuring the legal sufficiency of any remedy selected in the Microsoft litigation: the remedy must "seek to 'unfetter [the] market from anticompetitive conduct,' * * * to 'terminate the illegal monopoly, deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future.'" *Microsoft III*, 253 F.3d at 103 (quoting *Ford Motor Co.* v. *United States*, 405 U.S. 562, 577 (1972), and *United States* v. *United Shoe Machinery Corp.*, 391 U.S. 244, 250 (1968)). As the District Court recognized in beginning remedy proceedings on remand (9/28/01 Tr. 6-7), not one word in the D.C. Circuit's opinion suggests the slightest antipathy toward any conduct remedy related to the illegal monopolization that the Court of Appeals exhaustively condemned.[1] The District Court warned the plaintiffs to be "cautiously attentive to the efficacy of every element of the proposed relief." 9/28/01 Tr. 8. That is, the plaintiffs must make sure that the proposed remedy works.

That admonition appears to have fallen on deaf ears. Because liability has been established and affirmed in great detail, the scope of the District Court's appropriate deference to DOJ is extremely limited because the range of permissible action by DOJ is closely confined. There is no litigation risk other than the risk that the District Court

[1] Indeed, in denying rehearing, the D.C. Circuit made crystal clear that "[n]othing in the Court's opinion is intended to preclude the District Court's consideration of remedy issues." Order, at 1 (D.C. Cir. Aug. 2, 2001) (per curiam).

would not approve a particular remedy, or that the District Court's exercise of discretion in approving a remedy might be reversed on appeal. A remedy, even one imposed by agreement, must provide adequate relief for the violations that have been proved, however. DOJ is entitled to deference only for choices that fall within the range of adequate relief.

The RPFJ misses the point of the central theory of liability. The RPFJ does not impose certain, enforceable, or competitively significant obligations on Microsoft to restore competition or to avoid suppressing future threats. The RPFJ allows Microsoft to keep every anticompetitive gain that resulted from its illegal conduct, simply requiring Microsoft to find new and slightly different ways to accomplish its anticompetitive goals. DOJ seems to recognize that the case focused on two specific products — Netscape Navigator and Java — that embodied the broader threat of middleware and the Internet to the stability and significance of Microsoft's monopoly. The RPFJ does nothing to restore the specific competitive threat posed by an independent Internet browser. It does nothing to restore the threat of cross-platform Java. And it does nothing to protect any other middleware threat — in the unlikely event that another such threat might arise within the short duration of the RPFJ — from much similar exclusionary conduct, or indeed from the identical commingling of code that sealed Netscape's fate.

Rather, the RPFJ appears to assume that it is still 1995, and that the threat of the Internet browser can begin anew without confronting a more thoroughly entrenched Microsoft. The RPFJ does not take account of the impact on participants at different levels of the computer and software industries of an additional seven years of Microsoft's anticompetitive abuses. That view does not accord with reality, and the provisions

intended to permit open competition in that counterfactual world cannot achieve their goal.

### C. The Obligations That Supposedly Restore Competitive Conditions In Fact Make Microsoft Do Virtually Nothing Against Its Will

The RPFJ purports to give current and future middleware the ability to present the same threats to the Microsoft monopoly that Netscape and Java presented before the onset of Microsoft's illegal conduct. DOJ describes the obligations in the RPFJ as if they would have stopped Microsoft's suppression of Netscape, and as if they would allow rival middleware vendors to obtain the technical information that they need to "emulate Microsoft's integrated functions" (Testimony of Charles James before Senate Judiciary Committee 7 (Dec. 12, 2001)) and to step into the shoes of Microsoft middleware in relation to Windows and the Windows monopoly. The RPFJ does not achieve those goals.

Most of the RPFJ reduces to two sets of obligations, along with some prohibitions on exclusive deals and on retaliation against those who take advantage of Microsoft's obligations. One set of obligations appears to restrain Microsoft from taking particular actions to interfere with OEMs' placement of the icons of Non-Microsoft Middleware on their machines, or with end-users' use of those products. These OEM flexibility provisions principally rely on the OEMs to provide a remedy for Microsoft's misconduct. The other set of obligations requires a certain degree of disclosure of APIs and Communications Protocols to allow competing software products can "interoperate" — an undefined term — with the monopoly OS.

For the most part, the obligations placed on Microsoft by the RPFJ simply replicate current options voluntarily provided by Microsoft. For example, Microsoft must

continue to disclose the APIs it currently discloses in the Microsoft Developers' Network (MSDN), a program Microsoft developed to further its self-interest in making the Windows platform popular with software developers. And Microsoft must continue to allow end-users to delete icons from the desktop and start menu. Such provisions at most simply prohibit Microsoft from making matters worse than they are after Microsoft's years-long anticompetitive campaign. Indeed, the RPFJ in some instances specifically approves potential *misuse* of Microsoft's current voluntary implementations of the flexibility and disclosure provisions.

To begin with the flexibility provisions, their chief flaw is their focus on icons rather than on middleware functionality. This is literally a superficial approach. Microsoft can include its own middleware and middleware APIs on every PC. Developers will know those APIs are there and consequently will write to them in preference to the APIs of a competing product that may or may not be on a particular machine. No provision of the RPFJ restricts Microsoft's insertion and commingling of middleware code into the "Windows Operating System Product" bundle that Microsoft receives the right to define *for decree purposes* "in its sole discretion." RPFJ § VI(U). From the point of view of developers — and thus of the ability of middleware to erode the applications barrier to entry — these "flexibility" provisions are meaningless.

Even to the extent that competing middleware vendors might obtain favorable placement for their products' icons in preference to the icons for Microsoft products, that achievement would be both superficial and temporary. The functionality of the Microsoft product would remain on the machine, and Microsoft could insist on its invocation for a variety of functions. And, 14 days after a PC first boots up, Microsoft would be free to

nag users to click a "Clean Desktop Wizard" which would organize icons in the way that suited Microsoft. There is nothing in the RPFJ to stop that "Wizard" from resetting default applications to coincide with Microsoft's preferences as well, or even from enhancing the product so that it becomes a Clean File Wizard to remove code of competing middleware with a single click.

These provisions place responsibility for restoring competition on innocent OEMs and ISVs rather than on Microsoft. And many provisions give end-users what they have now: the ability to remove an icon from the desktop or a program menu by right-clicking it and selecting "Delete," or by dragging it to the Recycle Bin. The provisions do change the status quo in one way. The "Add/Remove" function, which now removes some underlying code for applications, will only remove a few icons when the removed application is Microsoft middleware.

The disclosure provisions are no better. The RPFJ requires Microsoft to disclose APIs between "Microsoft Middleware" and a "Windows Operating System Product," but the definitions of those terms are so completely within Microsoft's control that it is impossible to tell whether Microsoft *ever* would have to disclose an API that might have competitive significance. As noted above, a "Windows Operating System Product" is whatever Microsoft says it is. "Microsoft Middleware" must be distributed separately from the OS (unlike, *e.g.*, the current version of Windows Media Player). "Microsoft Middleware" must be "Trademarked" in a way that would exclude Windows Messenger, may exclude Windows Media Player, and certainly would exclude any products that followed Microsoft's practice of simply combining the Microsoft® or Windows® marks with a generic or descriptive term.

Indeed, because "Microsoft Middleware" need not mean any more than the *user interface* of a middleware functionality that meets the other definitional requirements, see RPFJ § VI(J)(4), the only APIs that *must* be disclosed are those between the middleware *user interface* and "Windows," which Microsoft in its discretion can define to include all of any given middleware *functionality*. See *id.* § VI(U). Microsoft need not disclose how the middleware actually invokes Windows to *work*, except for the way that the OS displays the middleware's *shell*.

The disclosure provisions applying to Communications Protocols are similarly weakened by non-existent definitions. The disclosable Protocols are those required to "interoperate" — whatever that may mean — with equally undefined "Microsoft server operating products." RPFJ § III(E). In addition, the Communications Protocol disclosure provisions are limited by sweeping exceptions applying to security protocols that are intertwined with all significant computer-to-computer communication. See *id.* § III(J)(I). Microsoft can withhold parts of those Protocols (and, indeed, parts of APIs) on the basis that disclosure would compromise security of an installation.

If this exemption were limited to the customer-specific *data* like encryption keys or authorization tokens, it would be necessary, not objectionable. But the exemption explicitly permits Microsoft to withhold portions of the Protocols and APIs themselves, which necessarily makes "interoperation" (as that term normally is used) incomplete. Interoperation, however, is an all-or-nothing state. Software that can use only parts of APIs and Communications Protocols simply cannot "interoperate" with the software on the other side of the API or Protocol.

But that is not all. RPFJ § III(J)(2) permits Microsoft to refuse to disclose security-related Protocols or APIs to any company that does not meet Microsoft's standards of business viability or its standards for a business need. Again, little if anything is left of this disclosure requirement if Microsoft chooses to resist disclosure when that serves its anticompetitive goals.

One thing is certain. Unless Microsoft and DOJ alike render the RPFJ irrelevant by simply ignoring it, the District Court will be faced again and again with the task of interpreting the RPFJ's indistinct provisions. Microsoft has demonstrated its incentive and ability to contest even the most seemingly obvious points of any court order.

### D. The Public Interest Requires An Effective Remedy That The RPFJ Does Not Provide

Despite the belated efforts of DOJ to minimize the scope of this case, it remains the largest, most successful prosecution for monopolization liability since at least the Second World War. The D.C. Circuit affirmed "the District Court's holding that Microsoft violated § 2 of the Sherman Act in a variety of ways." 253 F.3d at 59. The breadth of that holding is clear from the 20 Federal Reporter pages consumed by the court's detailed discussion of Microsoft's array of exclusionary behavior. The competitive significance of the conduct condemned by that holding is explained both in the opinion, in the Declaration of Joseph E. Stiglitz and Jason Furman ("Stiglitz/Furman Dec.") 16-20, and in the Comment of Robert E. Litan, Roger G. Noll, and William D. Nordhaus ("Litan/Noll/Nordhaus Comment") 12-31, among other submissions for this Tunney Act proceeding. The difficulties encountered by peripheral claims are irrelevant, particularly because all of the challenged conduct supported monopolization liability *in addition to* one or more of the since-abandoned theories. The supposed "narrowing" left a

huge monopolization case with a stark judgment affirming the government's theory. The RPFJ does not provide a remedy commensurate with that liability.

The RPFJ is insufficient for another overarching reason. The passage of time has only exacerbated the problem of Microsoft's successful abuse of its operating systems monopoly to extend that monopoly to embrace other sectors of computing and to forestall threats to the monopoly from those sectors. Microsoft's monopoly over Internet browsing is complete, as its current 91% market share indicates. Julia Angwin, *et al.*, *AOL Sues Microsoft Over Netscape in Case That Could Seek Billions*, WALL ST. J., Jan. 23, 2002, at B1. Even the RPFJ recognizes, albeit through toothless provisions, that Microsoft is using its desktop OS monopoly to force greater use of its server operating systems. And Microsoft's efforts to use the inclusion of its Passport authentication software on every Windows machine as a means of directing through a Microsoft server all authentication and identification transactions — gaining a literal chokehold over the communications aspect of Internet computing — is so significant that Microsoft sought and obtained an exemption in the RPFJ specifically designed to excuse that known monopolistic strategy. See RPFJ § III(H)(1)[second][2]; see also *id.* § III(J).

Microsoft has made ample use of the seven years since the beginning of the conduct at issue in this case. The RPFJ is wholly inadequate even on its own terms, which assume that the world has returned to 1995. But the RPFJ does not begin to address what has happened since then.

The public interest in a remedy that achieves what antitrust law says it must cannot be obscured by focusing either on the preference of the technology industry for

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[2] RPFJ § III(H) contains two subsections (1) and (2). We distinguish between the two sets of subsections with the bracketed terms "first" and "second."

standards, or on the never-litigated assumption that Microsoft obtained its *original* operating systems monopoly legally in the 1980s. The last premise, after all, still suggests that the last ten years or so of Microsoft's hegemony have resulted from the illegal acts that prompted two government antitrust lawsuits. If DOJ's enforcement history is to be credited, Microsoft has at least doubled the life of its monopoly through illegal conduct.

In addition, even if the nature of software platforms generally, or computer operating systems in particular, results in *transitory* single-firm dominance, that does not mean that competition has no place, or that entrenched monopoly is somehow without social costs. See Stiglitz/Furman Dec. 13-16. Innovation results in the periodic replacement or "leapfrogging" of one standard by another. This is not some meaningless replacement of one monopoly with another, as some would have it. To the contrary, as economists — including those of the Chicago school — have recognized, "competition * * * 'for the field'" provides consumers with substantial benefits. See *Microsoft III*, 253 F.3d at 49 and sources cited therein. But if competition in a market is limited in scope to serial competition for transitory dominance, predatory conduct is especially harmful. See generally Stiglitz/Furman Dec. 13-16. The monopolist may need to eliminate only a few incipient but significant threats in the course of a decade in order to transform transitory dominance into a durable, even impregnable monopoly.

That is what happened here. Although Netscape Navigator had not developed into a competing applications platform when Microsoft cut off its revenue sources, Netscape contemplated just such a development — and Microsoft both contemplated and deeply feared it. The outcome of the competition that Microsoft thwarted is unknowable. But

there will be no further competition — much less competitive outcomes — if Microsoft is allowed to repeat the course of conduct it undertook here.

But the RPFJ permits Microsoft to continue to fortify and expand its monopoly. Indeed, the RPFJ provides an imprimatur for Microsoft to continue and expand a whole range of additional, related anticompetitive practices. As a consequence, the RPFJ is an instrument of monopolization, not a remedy for it. The Court should not add judicial endorsement to DOJ's agreement to give up the case. The "public interest," within the meaning of the Tunney Act, 15 U.S.C. § 16(e), requires far more effective relief.

## I. THE TUNNEY ACT REQUIRES CLOSE SCRUTINY UNDER THE PRESENT CIRCUMSTANCES

The Tunney Act exists "to *prevent* 'judicial rubber stamping'" of proposed antitrust consent decrees. *United States* v. *Microsoft Corp.*, 56 F.3d 1448, 1458 (D.C. Cir. 1995) (quoting H.R. Rep. No. 1463, 93d Cong. 2d sess. 8, reprinted in 1974 U.S.C.C.A.N. 6535, 6538) ("*Microsoft I*"); *United States* v. *BNS, Inc.*, 858 F.2d 456, 459 (9th Cir. 1988); *In re IBM*, 687 F.2d 591, 600 (2d Cir. 1982). Upon enactment it was immediately clear that "Congress did not intend the court's" review of a proposed settlement "to be merely pro forma, or to be limited to what appears on the surface." *United States* v. *Gillette Co.*, 406 F. Supp. 713, 715 (D. Mass. 1975) (Aldrich, J.).

The Tunney Act requires particularly close scrutiny of the RPFJ in this case. The government seeks to remedy a proven, well-defined, serious violation of the antitrust laws. Microsoft's heavy lobbying of the executive and legislative branches in order to bring political pressure for a lenient settlement heightens the need for scrutiny, and in addition makes necessary the Court's active investigation into Microsoft's failure to disclose the bulk of that lobbying despite the command of 15 U.S.C. § 16(g). The lenient

terms of the RPFJ itself further underscore the need for close judicial scrutiny. Never in the history of the Tunney Act has a Court been confronted with this combination of an impregnable judgment of liability, pervasive lobbying, and apparent surrender by the federal government. The circumstances here indicate exactly the sort of "failure of the government to discharge its duty" — whether or not actually "corrupt" — that even DOJ concedes warrants close judicial scrutiny of a settlement. CIS 66, 66 Fed. Reg. 59,476 (quoting *United States* v. *Mid-America Dairymen, Inc.*, 1997–1 Trade Cas. ¶ 61,508, at 71,980, 1977 WL 4352 at *8 (W.D. Mo. 1977)).

### A. The Government's Victory On Liability Removes Litigation Risk And Therefore Limits Deference

The CIS suggests (at 65-68, 66 Fed. Reg. at 59,475-476) that the Court owes nearly absolute deference to DOJ's decision to retreat from its appellate victory. That is not true. The affirmance of liability on appeal removes any speculation that "remedies which appear less than vigorous" simply "reflect an underlying weakness in the government's case." *Microsoft I*, 56 F.3d at 1461. There is no "underlying weakness"; liability is a given, and provides a clear benchmark for measuring whether the proposed relief is sufficiently effective to come "within the reaches of the public interest." *Id.* at 1460. Those "reaches" are narrower when liability is proved and affirmed than when it is merely alleged, as it was in *Microsoft I*.

#### 1. *The Imposition And Affirmance Of Liability Remove Any Constitutional Concerns About Searching Review And Require The Court To Perform* Its *Constitutional Duty*

Most important, the current posture of this case places it beyond the scope of the prudential and constitutional concerns expressed by some courts (and dissenting Justices) about judicial scrutiny of DOJ's *charging* decisions, or of its settlement of *unproven*

claims. It may be that when "the government is challenged for not bringing as extensive an action as it might, a district judge must be careful not to exceed his or her constitutional role." *Microsoft I*, 56 F.3d at 1462. Such concerns did *not* persuade the majority of the Supreme Court, however, which over a dissent rejected similar arguments in summarily affirming the modifications imposed by the district court in the *AT&T* consent decree. See *Maryland* v. *United States*, 460 U.S. 1001 (1983).

In any event, when the action has been brought, tried, and won, and the only question is whether the proposed relief is adequate, the constitutional concerns dissipate. Because DOJ already made the discretionary decision to bring the case, and successfully proved liability to the satisfaction of two courts, the Court in reviewing this settlement runs no risk that by exercising its normal remedial discretion under established legal principles it somehow might be said "to assume the role of Attorney General." *Microsoft I*, 56 F.3d at 1462. It was precisely the absence of a "judicial finding of illegality" that might impede the Tunney Act from "supply[ing] a judicially manageable standard for review." *Id.* at 1459. Here, two courts have provided the "*findings* that the defendant has actually engaged in illegal practices" that were missing in both *Microsoft I* and *AT&T* (like other cases settled before trial). *Id.* at 1460-1461 (emphasis added). In addition, the appellate affirmance imposed monopolization liability for all of the significant *conduct* that had been alleged to support the additional, largely supererogatory *legal theories* that were rejected as ground for *additional liability*.

It is accordingly entirely appropriate, and indeed necessary, for the Court in *this* case "to measure the remedies in the decree as if they were fashioned after trial," *Microsoft I*, 56 F.3d at 1461, because they *were* "fashioned after trial" and appellate

affirmance. The Court need not "assume that the allegations in the complaint have been formally made out" (*id.*), but rather knows beyond doubt exactly which allegations were proved. There *is* a "judicial finding of relevant markets, closed or otherwise, to be opened" *and* "of anticompetitive activity to be prevented." *Maryland* v. *United States*, 460 U.S. at 1004 (Rehnquist, J., dissenting). "[T]hat there was an antitrust violation," and "the scope and effects of the violation," were not assumed, as they must be in a pretrial settlement, but proved to the satisfaction of two courts. *Id.*

Very limited prosecutorial discretion remains in this situation. The amorphous, policy-laden choices whether to bring a case and how much to allege, are behind us. The predictive judgment as to the chances of success on liability likewise is beyond serious dispute in light of the unanimous affirmance of monopolization liability by the *en banc* court of appeals. DOJ has some leeway in choosing a remedy, but its chosen remedy must be "adequate to remedy the antitrust violations alleged in the complaint," *United States* v. *Bechtel Corp.*, 648 F.2d 660, 665 (9th Cir. 1981), under the well-established legal standards for antitrust relief. See *Microsoft III*, 253 F.3d at 103. Those standards inform the "public interest" determination under the Tunney Act, and, by contrast with the "public interest" standing alone, are judicially manageable without a doubt.

The D.C. Circuit has made crystal clear that a consent decree "even entered as a pretrial settlement, is a judicial act," so that "the district judge is not obliged to accept one that, on its face and even after government explanation, appears to make a mockery of judicial power." *Microsoft I*, 56 F.3d at 1462. Judicial approval of the settlement in this case is far more of a classic "judicial act" than the typical settlement without proof of

liability. As in the context of post-conviction criminal sentencing, the Court must act as more than a passive recipient of arrangements made between the parties

There is no serious question that a federal court may reject a plea bargain in its sound discretion, Fed. R. Crim. P. 11, *Santobello* v. *New York*, 454 U.S. 257, 262 (1971), for reasons that may include the "court's belief that the defendant would receive too light a sentence under the circumstances." *United States* v. *Adams*, 634 F.2d 830, 835 (5th Cir. 1981).[3] Granted, plea bargains in the criminal context generally involve admissions of liability. But the case here, if anything, is stronger here, where liability has been, not admitted, but established after extensive litigation and affirmed by an *en banc* court of appeals over the vigorous objection of the defendant.

At this stage, "the discrepancy between the remedy and undisputed facts of antitrust violations" can "be such as to render the decree 'a mockery of judicial power.'" *Massachusetts School of Law, Inc.* v. *United States*, 118 F.3d 776, 782 (D.C. Cir. 1997) (quoting *Microsoft I*, 56 F.3d at 1462). By contrast with the concerns expressed in the pretrial settlement context about the intrusion of Tunney Act courts on functions that are constitutionally allocated to the executive branch, the situation after liability is established presents opposite concerns under our system of separated powers, and of checks and balances between the branches of government. Constitutional concerns in this case would arise only if the Court failed to apply the legal standards governing antitrust relief to the adjudicated liability here. DOJ asks the Court not only to abandon its traditional power over the relief to be imposed in an adjudicated case, but also to ignore

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[3] See also, *e.g.*, *United States* v. *Robertson*, 250 F.3d 500, 509 (6th Cir. 2001); *United States* v. *Greener*, 979 F.2d 517, 521 (7th Cir. 1992); *United States* v. *McGovern*, 822 F.2d 739, 742 n.4 (8th Cir. 1987); *United States* v. *Randahl*, 712 F.2d 1274, 1275 (8th Cir. 1983).

the clear command of Congress to provide a check on the irresponsible exercise of power by a suddenly and inexplicably compliant prosecutor. The Court should refuse that suggestion.

### 2. *The Extensive Record And Judicial Opinions Provide Clear, Manageable Standards For Substantive Review Of The RPFJ*

None of the authorities on which DOJ relies involved a full trial in which liability was proved, much less one in which liability was affirmed on appeal. Indeed, the statements quoted in the CIS draw heavily on that fact — that in each case there had been no finding of liability, and that review of the settlement at issue necessarily involved second-guessing DOJ's prosecutorial discretion in making two rather standardless assessments: (1) whether to bring a case at all, and thus place the matter in a judicial forum, see *Microsoft I*, 56 F.3d at 1459-1460, and (2) the chances for success. See, *e.g.*, *Mid-America Dairymen*, 1977 WL 4352, at *8 (Tunney Act "did not give this Court authority to substitute its judgment about the advisability of settlement by consent judgment *in lieu of trial*") (emphasis added).

Here, neither of these fundamentally discretionary prosecutorial judgments is at issue. The decision to bring the case was made years ago, and the case was litigated and won, establishing liability to a known extent.

It is telling that in asking for broad deference DOJ places heavy reliance on language from the Ninth Circuit's decision in *United States* v. *Bechtel Corp.*, 648 F.2d 660 (9th Cir. 1981). See CIS 66-67 & n.4; 66 Fed. Reg. 59,476. One could hardly find a setting more distant from this one. Not only did *Bechtel* not involve a finding of liability after full litigation and affirmance on appeal; and not only did the setting there — alleged complicity in the "Arab boycott" of Israel in the mid-1970s — implicate the foreign

policy powers of the executive branch; but the issue before the court in *Bechtel* was the *defendant's* effort to avoid its own settlement by arguing that the settlement to which it had agreed was "not in the public interest." *Bechtel*, 648 F.2d at 665.[4]

As it happens, however, the court of appeals in *Bechtel* enunciated the legal standard that *should* be applied here: "whether the relief provided for in the proposed judgment was *adequate to remedy the antitrust violations* alleged in the complaint." *Bechtel*, 648 F.2d at 665 (emphasis added). That is precisely the standard that DOJ wishes to avoid. Where liability is a given, as it is here, the Court must ensure that the "remedies negotiated between the parties and proposed by the Justice Department clearly and effectively address the anticompetitive harms" that have been proved. *United States* v. *Thomson Corp.*, 949 F. Supp. 907, 913 (D.D.C. 1996). When the "anticompetitive harms" and their illegality have been proved, the fit between those harms and the proposed remedies must be closer than when those harms merely have been "initially identified," *id.*, as is usually the case in Tunney Act proceedings.

Even if there were no finding a liability, the Court would not be compelled "unquestionably [to] accept a consent decree as long as it somehow, and, however inadequately, deals with the antitrust problems implicated in the lawsuit." *United States* v. *Alcan Aluminum, Ltd.*, 605 F. Supp. 619, 622 (W.D. Ky. 1985) (citing *United States* v. *AT&T*, 552 F. Supp. 131, 151 (D.D.C. 1982), aff'd sub nom. *Maryland* v. *United States*, 460 U.S. 1001 (1983). With liability in place, however, the Court need not proceed "on the assumption that the government would have won." *Gillette*, 406 F. Supp. at 716 n.2.

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[4] Decided in an equally remote context was *United States* v. *BNS, Inc.*, 858 F.2d 456 (9th Cir. 1988), in which the Ninth Circuit approved a preliminary injunction, entered over DOJ's objection, against a tender offer for an acquisition that a proposed consent decree would have permitted.

The government *did* win. The Court in this case need not "speculate in regard to the probability of what facts may or may not have been established at trial." *United States* v. *Mid-America Dairymen, Inc.*, 1977 WL 4352, at *1. Those facts are a matter of record.

Whatever narrow deference may be afforded here amounts only to the tested rule that "[i]t is not the court's duty to determine whether this is the *best possible* settlement that could have been obtained." *Gillette*, 406 F. Supp. at 716 (emphasis added). Although the Court may not be able to insist on the "best possible" decree, the proof and affirmance of liability require the Court to ensure that the RPFJ is at least *adequate* on that record under well-established remedial principles. *Bechtel*, 648 F.2d at 665.

The differences are real, but not dramatic, between the Court's role in deciding whether to accept this settlement in Track I, and in deciding in Track II what relief to impose at the request of those plaintiffs who have not abandoned the pursuit of a full and effective remedy in this case. In each track, the Court must measure proposed remedies against the legal standards set out by the D.C. Circuit and by the Supreme Court. In each track, the Court should not approve a remedy that is inadequate to meet those standards. In evaluating the RPFJ, the Court is not at liberty to substitute its view of equally effective, or marginally more effective relief, if the terms of the RPFJ are fully *adequate* to the task as the law defines it. That is, the DOJ's choices among *adequate* alternatives warrant deference, but its determination of what *is* adequate warrants none. In the other track, the Court *does* have the liberty, not merely to go beyond any decree that might be entered in this track, but also to insist that the final decree address the competitive issues in a way that satisfies the *Court's* view as to the *best* and *most effective* means of opening the operating systems market to competition, depriving Microsoft of the fruits of

its illegal conduct, and preventing similar monopolistic abuses in the future. That is, while in this track of the proceeding the Court cannot insist on the "best possible settlement," *Gillette*, 406 F. Supp. at 716, so long as the proposed relief meets the remedial standards anchored in antitrust law, in Track II the Court has not only the power but the duty to impose the "best possible" decree.

### B. Broad Deference Is Particularly Inappropriate Because The Circumstances Are Suspicious

#### 1. *Microsoft's Manifestly Inadequate Disclosure Under The Tunney Act's Sunshine Provisions Weighs Strongly Against Judicial Deference To The Terms Of The RPFJ*

Section 2(g) of the Tunney Act requires Microsoft to file a "true and complete description" of "any and all written or oral communications" by it or on its behalf "*with any officer or employee of the United States concerning or relevant to*" the proposed settlement. 15 U.S.C. § 16(g) (emphasis added). The only exception from this requirement is for settlement negotiations between "counsel of record *alone*" and "employees of the Department of Justice alone." *Id.* (emphasis added).

When Senator Tunney first introduced his bill, he focused on the significance of the disclosure provision. "Sunlight is the best of disinfectants," he explained (quoting Justice Brandeis), and thus "sunlight * * * is required in the case of lobbying activities attempting to influence the enforcement of the antitrust laws." 119 Cong. Rec. 3449, 3453 (1973). Minor amendments to Section 2(g) were designed "to insure that no loopholes exist in the obligation to disclose *all lobbying contacts* made by defendants in antitrust cases *culminating* in a proposal for a consent decree." H.R. Rep. No. 1463, at 12 (emphasis added).

The breadth of Microsoft's effort to use political pressure to curtail this case has

no parallel in the history of the antitrust laws. The ITT episode that prompted the Tunney Act pales in comparison. It has been widely known that since 1998 Microsoft has comprehensively lobbied both the legislative and executive branches of the federal government in an effort to create political pressure to end this case.[5] But Microsoft did not disclose any of these contacts, much less all of them, as the Tunney Act requires.

Rather, Microsoft disclosed only meetings that occurred during the last round of settlement negotiations ordered by the Court. Microsoft's insupportable interpretation of its statutory disclosure duty effectively nullifies the sunshine provisions of the Act, which are crucial to the Act's protection of the public interest.

a. *Contacts With All Branches Must Be Disclosed.*

All contacts with "any officer or employee of the United States" must be disclosed. As Senator Tunney explained,

> Included under [section 16(g)] are contacts on behalf of a defendant by any of its officers, directors, employees, or agents or any other person acting on behalf of the defendant, with any Federal official or employee. Thus, * * * *the provision would include contacts with Members of Congress or staff, Cabinet officials, staff members of executive departments and White House staff.*

119 Cong. Rec. at 3453 (emphasis added). In other words, the disclosure applies

> equally to contact with any branch of Government, including the Congress. * * * [T]here is a great deal to be gained by having a corporate official who seeks to influence a pending antitrust case through congressional pressure, know that this activity is subject to public view.

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[5] See generally Declaration of Edward Roeder (attached). See also, *e.g.*, Ian Hopper, *Microsoft Lobbied Congress Over Case*, SAN JOSE MERCURY NEWS, Jan. 11, 2002, at C3; Heather Fleming Phillips, *Washington Politicians Chime In On Microsoft*, SAN JOSE MERCURY NEWS, June 30, 2001, at A1; Rajiv Chandrasekaran & John Mintz, *Microsoft's Window of Influence; Intensive Lobbying Aims to Neutralize Antitrust Efforts*, WASH. POST, May 7, 1999, at A1; James Grimaldi & Jay Greene, *Microsoft Hard At Work Outside Courtroom*, SEATTLE TIMES, Feb. 17, 1999, at A1. See also *Microsoft's Political Donation In Question; South Carolina GOP Says Decision To Quit Lawsuit Coincidental*, CHI. TRIB., Dec. 25, 1998, at 3.

*Id.* Indeed, it is firmly established in other areas of the law that "officer" of the United States includes Members of Congress and their employees.[6]

But Microsoft did not disclose its extensive and heavily reported lobbying of Congress. Indeed, upon the remand to the District Court, Microsoft's lobbying of Congress produced a letter signed by more than 100 Members urging a swift settlement. But Microsoft did not disclose even that lobbying, aimed at pressuring a swift capitulation by the government despite its victory on appeal, directly before the last round of settlement negotiations.

b. *The "Counsel of Record" Exception Is Very Narrow.*

Section 16(g) provides a narrow exception from disclosure for contacts between "counsel of record *alone*" (emphasis added) — that is, without any other corporate officers or employees also involved — and "the Attorney General or the employees of the Department of Justice alone." As Senator Tunney explained, this "limited exception" for attorneys of record "is designed to avoid interference with legitimate settlement negotiations between attorneys representing a defendant and Justice Department attorneys handling the litigation. * * * [T]he provision is not intended as loophole for extensive lobbying activities by a horde of 'counsel of record.'" 119 Cong. Rec. at 3453. The House Report further clarifies that this "limited exception" distinguishes "'*lawyering*' contacts of defendants from their '*lobbying* contacts'." H.R. REP. No. 1463, *supra*, at 9.

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[6] *See, e.g.*, *Williams* v. *Brooks*, 945 F.2d 1322, 1325 n.2 (5th Cir. 1991) ("a congressman is an 'officer of the United States' within the meaning of [28 U.S.C. § 1442(a)(1)]"); *Nebraska* v. *Finch*, 339 F. Supp. 528, 531 (D. Neb. 1972) ("It is * * * clear that a representative to the Congress of the United States is an officer of the United States, not an officer of the district in which he was elected."); *United States* v. *Meyers*, 75 F. Supp. 486, 487 (D.D.C. 1948) ("Obviously, a Senator of the United States is an officer of the United States.").

Microsoft did not disclose the well-publicized participation in the last round of settlement negotiations of its lobbyist-lawyer, Charles F. "Rick" Rule. It appears that the critical "negotiations" leading to the RPFJ took place, not in the offices of Microsoft's counsel of record, but "in Justice's offices and those of Microsoft legal consultant Rick Rule." Paul Davidson, *Some States Fear Microsoft Deal Has Big Loopholes*, USA TODAY, Nov. 5, 2001. Rule has been a registered lobbyist for Microsoft for some years, but was not named as counsel of record until November 15, 2001, after the settlement negotiations were complete. See Notice of Appearance (D.D.C. filed Nov. 15, 2001). That designation — long *after* the settlement deal had been struck —cannot retroactively shield his extensive prior contacts with Mr. James or other executive or legislative officials from disclosure. Contacts by "[a]ttorneys not counsel of record" must be disclosed. *Id.* Of course, Microsoft's many other lobbyists do not conceivably come within this exception. But Microsoft concealed all of those lobbying contacts.

c. *All Communications Urging The Government To Abandon Or Settle The Case Were "Relevant To" The Proposed Settlement*

Section 16(g) requires the disclosure of all contacts "concerning or relevant to" a proposed settlement. This statutory definition is intentionally broad. Microsoft's disclosure interprets the word "concerning" very narrowly, so that the provision covers only actual settlement discussions — and only the last round of them. In Microsoft's view, the Tunney Act would require disclosure only of the very meetings that must precede any settlement. Microsoft reads the words "relevant to" right out of the statute. That this statutory provision is broad is obvious by its very terms; in order for the phrase "relevant to" not to be mere surplusage, it must encompass contacts less directly focused on the settlement than those that "concern[]" that agreement.

Senator Tunney gave an example: "the provision would require disclosure * * * of a meeting between a corporate official and a Cabinet officer discussing 'antitrust policy' during the pendency of antitrust litigation against that corporation." 119 Cong. Rec. at 3453. The Act borrows from evidentiary concepts, including the privilege for settlement discussions, which prompted the narrow exception for counsel of record. The evidentiary concept of relevance is very broad. See Fed. R. Evid. 401. "Relevance of evidence is established *by any showing, however slight*, that the evidence" makes a legally important factor "more or less likely." *United States* v. *Mora*, 81 F.3d 781, 783 (8th Cir. 1996) (emphasis added) (citation omitted). Plainly "relevant" to the question whether a defendant's lobbying activities influenced the existence and terms of a consent decree are contacts with the administration, and with members of Congress, that touch on the desirability of the government's agreeing to end the case. It is startling, for example, that Microsoft would omit reference to its efforts to enlist support for congressional proposals that would have cut DOJ's funding for the pursuit of this case, and for antitrust enforcement in high technology industries in general.[7]

Disclosure under Section 2(g) is not usually burdensome; most defendants do not try to win their case politically rather than in the courtroom. Microsoft's massive and unprecedented effort to distort the judicial process through political pressure makes its compliance burdensome, but all the more necessary. It is exactly this sort of manipulation that the Tunney Act was designed to discourage by bringing it to light.

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[7] See Chandrasekaran & Mintz, *supra*, WASH. POST, May 7, 1999, at A1; Grimaldi & Greene, *supra*, SEATTLE TIMES, Feb. 17, 1999, at A1.

d. *Microsoft's Flouting Of Its Statutory Duty Counsels Painstaking Judicial Scrutiny Of The RPFJ*

Microsoft's cunning "interpretation" of the statutory disclosure requirements — so that disclosures reach only the very settlement discussions that the Tunney Act was *not* concerned about — sheds considerable light on Microsoft's likely "interpretations" of any remedy imposed on it, especially one like the RPFJ of which it can claim to be an equal drafter, if not the principal author. Microsoft's disclosure is so inadequate as to raise questions about Microsoft's good faith. The filing includes no disclosure of *any* lobbying contacts between Microsoft and the administration; it includes no disclosure of *any* contacts between Microsoft and members of Congress; it includes no disclosure of *any* contacts whatsoever before September 27, 2001, although it is well known that Microsoft and the government have tried to settle the government's antitrust action since before it was filed, and that Microsoft lobbied Congress to bring pressure on DOJ to settle or simply abandon the case.

Microsoft should face contempt sanctions for its certification "that the requirements of [Section 16(g)] have been complied with and that such filing is a true and complete description of such communications known to the defendant or which the defendant reasonably should have known." DOJ should refuse to acquiesce in Microsoft's deception. Although DOJ cannot be expected to be aware of all of Microsoft's lobbying of Congress in an effort to create pressure for a favorable settlement, DOJ should reveal the end-product of that pressure in the form of communications from Members and their staffs. And there is no excuse for DOJ to be complicit with Microsoft when it comes to contacts with DOJ itself. In particular, DOJ certainly is aware of Mr. Rule's lobbying contacts with before he belatedly appeared as

counsel after the settlement had been concluded. The proper resolution of this issue is the appointment of a special master with the ability to examine the relevant participants under oath. In view of its responsibility to enforce 15 U.S.C. § 16(g) along with the rest of the antitrust laws, DOJ should request (and support) the implementation of such a procedure by the Court.

### 2. *The RPFJ Represents A Swift And Significant Retreat By DOJ*

Another factor counseling against deference here is the DOJ's striking capitulation to Microsoft's view of an appropriate remedy, despite the unanimous affirmance of the core of DOJ's case. The insubstantial provisions of the RPFJ provide ample "reason to infer a sell-out by the Department," *Massachusetts School of Law*, 118 F.3d at 784.

After prevailing on liability in the district court, DOJ sought and obtained not only structural relief — as is "common" in broad monopolization cases, see *Microsoft III*, 253 F.3d at 105 — but also "interim" conduct restrictions that clearly could not stand alone as a monopolization remedy. DOJ earlier recognized that the interim conduct remedies were stopgaps to keep the competitive situation from continuing to decline in the year or so before divestiture jumpstarted competition. See Plaintiffs' Memorandum in Support of Proposed Final Judgment 30-31 (corrected version) (filed May 2, 2000). On remand, DOJ abandoned the structural relief that it formerly found necessary, even though liability on the monopolization claim — which alone could support structural relief in the first place — was affirmed with minor modifications. DOJ stated that it would pursue relief "modeled upon" the interim "conduct-related provisions," along "with such additional provisions as Plaintiffs may conclude are necessary to ensure that the relief is effective, given their decision not to seek a structural reorganization of the company." Joint Status Report 2 (filed Sept. 20, 2001).

Instead of fortifying the proposed decree to compensate for the abandonment of structural relief, however, DOJ moved considerably backward from the interim remedies, narrowing Microsoft's duties and providing broad exceptions. Indeed, the RPFJ is weaker than the final proposal in the settlement negotiations that took place during Spring 2000, before any judgment of antitrust liability, much less appellate affirmance.[8] *Then*, there was litigation risk as to liability. *Now* there is none. Nonetheless, the definitions and obligations in the *current* RPFJ fall short of those in the pre-judgment offer.

"[T]he government's virtual abandonment of the relief originally requested" is "a sufficient showing that the public interest was not * * * adequately represented" in the RPFJ. *United States* v. *Associated Milk Producers, Inc.*, 534 F.2d 113, 117 (8th Cir. 1976). It is precisely when DOJ appears to have "abruptly 'knuckled under,'" *id.* at 118, as here, that judicial scrutiny under the Tunney Act should be most substantive and searching.

### 3. *The CIS Overstates The Terms Of The RPFJ, Reflecting The Indefensibility of the RPFJ Itself*

The CIS underscores the need for close scrutiny of the actual terms of the RPFJ and their effectiveness. The CIS seeks to convey an image of stringency by adding terms to provisions of the RPFJ that are absent from the RPFJ itself. But it is the RPFJ, not the CIS, that defines the enforceable bargain between the parties. As the Supreme Court has recognized, "any command of a consent decree * * * must be found within its four corners, and not by reference to any purposes of the parties." *United States* v. *ITT Continental Baking Co.*, 420 U.S. 223, 233 (1975) (citations and internal quotation marks

[8] That final proposal, known as Draft 18, was formerly posted on a now-defunct website, www.contentville.com, in connection with a review of a book that detailed the progress of this case. The text of Draft 18 may now be viewed at www.ccianet.org/legal/ms/draft18.php3.

omitted). While the CIS may be useful in interpreting ambiguous terms in the RPFJ, the wording of the CIS is not independently enforceable. Only the RPFJ would be entered as a judgment, and "[t]he government cannot unilaterally change the meaning of a judgment." *Bechtel*, 648 F.2d at 665. It would be different, of course, if the CIS or its relevant refinements were "expressly incorporated in the decree." *ITT Continental*, 420 U.S. at 238.

In particular, the CIS goes beyond the text of the RPFJ to paint a far stricter picture of Microsoft's disclosure obligations than the RPFJ supports. It is no wonder that DOJ seeks to defend a document — the CIS — to which Microsoft would not be bound, rather than the far weaker RPFJ that alone would be judicially enforceable. The CIS cannot transform the RPFJ into a better deal for competition and consumers than it is.

## II. THE RPFJ MUST MEET THE LEGAL STANDARDS NORMALLY APPLICABLE TO ANTITRUST REMEDIES

The "public interest" standard in the Tunney Act is not without content. Rather, those "words take meaning from the purposes of the regulatory legislation," *NAACP* v. *Federal Power Comm'n*, 425 U.S. 662, 669 (1976). The well-developed jurisprudence of antitrust remedies provides sound guidance for the public interest determination.

Although a district court should not "engage in an *unrestricted* evaluation of what relief would best serve the public," *Microsoft I*, 56 F.3d at 1458 (quoting *Bechtel*, 648 F.2d at 666) (emphasis added), principled restrictions for that evaluation in this case arise from the extensive, unvacated Findings of Fact, the comprehensive opinion affirming monopolization liability on appeal, and the long-standing remedial principles of antitrust law, principles that the D.C. Circuit instructed the District Court to apply to any proposed relief on remand. See *Microsoft III*, 253 F.3d at 103. The "appropriate" inquiry (*Bechtel*,

648 F.2d at 666) is "whether the relief provided for in the proposed judgment [i]s adequate to remedy the antitrust violations" that were proved at trial and affirmed on appeal. *Id.* at 665.

The D.C. Circuit provided benchmarks rooted in Supreme Court jurisprudence to guide the evaluation whether a remedy is "adequate." A remedy in this case must serve "the objectives that the Supreme Court deems relevant," *Microsoft III*, 253 F.3d at 103. That is, a remedy must "seek to * * * [1] 'terminate the illegal monopoly, [2] deny to the defendant the fruits of its statutory violation, and [3] ensure that there remain no practices likely to result in monopolization in the future.'" *Id.* at 103 (quoting *Ford*, 405 U.S. at 577, and *United Shoe*, 391 U.S. at 250).[9]

### A. The Relief Should "*Terminate* The Illegal Monopoly"

In a monopolization case, the problem to be remedied is the monopoly itself. Because the RPFJ would leave the illegally maintained monopoly in place without making the market structure more competitive, to satisfy this criterion relief must exclude the possibility that Microsoft again will *prolong* its monopoly power by *abusing* it. At a minimum, however, a monopolist should emerge from a remedy facing competitive threats of *similar* scope and significance to those it illegally stamped out. The D.C.

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[9] It is telling that the CIS ignores the remedial standard that the D.C. Circuit set out. See CIS 24, 66 Fed. Reg. 59,465. The CIS submerges the need to craft relief that tends to "terminate" the illegally maintained monopoly, despite the court of appeals' contrary instructions. See 253 F.3d at 103. Rather, the CIS endorses a watered-down standard in order to set a lower bar for the RPFJ to clear, in tacit recognition that the RPFJ cannot satisfy the D.C. Circuit's standard. The CIS would require relief only to "[e]nd the unlawful conduct," to prevent recurrence of the violation "and others like it," and to "undo its anticompetitive effects." CIS 24, 66 Fed. Reg. 59,465. The RPFJ falls short even of these modified, more modest objectives, however, particularly when measured by its failure to prevent future violations that work slight variations on the conduct condemned by two courts, and its failure to "undo" any of the "anticompetitive effects" of Microsoft's sweeping, coordinated, and successful anticompetitive campaign.

Circuit recognized that the illegal conduct in this case was aimed at increasing and hardening the applications barrier to entry that insulates Microsoft's OS monopoly. See *id.* at 55-56, 79. The CIS similarly recognized that "[c]ompetition was injured in this case principally because Microsoft's illegal conduct maintained the applications barrier to entry * * * by thwarting the success of middleware." CIS 24, 66 Fed. Reg. 59,465. A remedy that does not literally terminate the monopoly accordingly must undermine the applications barrier to entry that was strengthened by the illegal conduct.

### B. The Relief Should Prevent "Practices Likely To Result In Monopolization In The *Future*"

To satisfy this criterion, any remedy must both (1) prevent the monopolist from engaging in the *same* sorts of conduct that underlie the current finding of liability, and (2) prevent *other* types of conduct that could preserve the monopoly. The "monopolization in the future" that must be prevented includes both the simple maintenance of the current monopoly and the expansion of that monopoly's scope. Relief should make it impossible for the monopolist to continue its pattern of using current market power to foreclose imminent or contemplated competitive threats. Because Microsoft has been "caught violating the [Sherman] Act," it "must expect some fencing in." *Otter Tail Power Co.* v. *United States*, 410 U.S. 366, 381 (1973).

A monopolist that has been litigating for years no doubt has developed anticompetitive techniques that achieve the same goals through slightly different means. Microsoft embarrassed DOJ by obtaining language in the 1995 consent decree that was tailored to exclude, at least arguably, the company's next planned anticompetitive initiative. Exemptions, provisos, and narrow definitions should be scrutinized on the

assumption that Microsoft again has tried to ensure that the RPFJ will not impede currently planned anticompetitive acts.

### C. The Relief Should "*Deny* To The Defendant The *Fruits* Of Its Statutory Violation"

Relief in an antitrust case not only must prevent "recurrence of the violation," but also must "eliminate its consequences." *National Society of Professional Engineers* v. *United States*, 435 U.S. 679, 697 (1978). Thus, a remedy should prevent a monopolist from retaining the accrued competitive benefits of its illegal conduct. These advantages may permit a monopolist to maintain its monopoly without additional antitrust violations. Relief that allows a wrongdoer the full benefit of its illegal activity fails the most basic test of any remedy under any branch of the law.

In this case, the "fruits" of Microsoft's illegal conduct may be the most important target of a responsible remedy. One of the chief advantages that Microsoft gained by incorporating the Internet browser into the Windows monopoly was the ability to control not only the browser for its own sake, suppressing the possibility that the Internet browser would provide a source of alternate, OS-neutral APIs, but also the browser as the gateway to all Internet computing. As the Litan/Noll/Nordhaus Comment explains (at 58-60), one of the most important fruits of monopolistic conduct is the suppressed development of competitive threats. That is why a forward-looking remedy must be rooted in current market conditions, and must seek to restore competition to where it likely would have been in the absence of the anticompetitive conduct. Litan/Noll/Nordhaus Comment 35-36, 40-42, 58-59.

### D. Broader Principles Applicable To Injunctive Relief Also Should Inform The Analysis Of The RPFJ

The remedial analysis here resembles other remedial undertakings. Although civil

antitrust relief is not punitive, effective antitrust relief shares with criminal sentencing the broad goals of incapacitation and deterrence. As much as possible, an illegal monopolist should be flatly prevented from engaging in the same or similar suppression of competition in the future. In addition, the remedy should be enforceable with sufficient speed and certainty to make stiff contempt sanctions likely if the monopolist nonetheless manages to engage in anticompetitive conduct again.

The point of antitrust relief after a finding of liability is to learn from history, not to permit the offender to repeat it. This consideration is particularly acute here, where the purposes of the expiring 1995 consent decree clearly have not been realized, but rather have been evaded or neutralized.

Because antitrust relief necessarily is forward-looking, a remedy's effectiveness should be judged with respect to where the market is going, not where it has been. Microsoft has directed its efforts to destroy the competitive threat of Internet computing. The more functionality that is performed on the Web, the less significant the operating system on a particular client device connected to the Web. Thus, Internet computing represents the maturation of the competitive threat posed by the Internet browser and squelched by Microsoft's illegal conduct. The current industry-wide focus on Web-based services reflects the realization that a competitive market still survives in this sector. The Court will have to consider whether the RPFJ in fact is "all about the past, not the future battle in Internet services[, and] doesn't touch the company's ability to use Windows XP to extend its monopoly to these new areas." Walter Mossberg, *For Microsoft, 2001 Was A Good Year*, WALL ST. J., Dec. 27, 2001, at B1. See Stiglitz/Furman Dec. 38-39.

## III. THE RPFJ FALLS FAR SHORT OF PROVIDING A REMEDY FOR PROVEN OFFENSES UPHELD ON APPEAL

The RPFJ lights upon narrowly defined practices and prohibits narrowly defined versions of them, in ways that might have mitigated, but would not have ended, the very conduct at issue in this case. The RPFJ does not measure up to the sweeping monopolization violations found by two courts. The RPFJ's provisions do not address Microsoft's ability and incentives to strengthen the applications barrier to entry, which was the underlying issue at the core of the case, instead focusing on techniques of monopolization that have been defined so narrowly that Microsoft's actual behavior need not change. And when addressing a precise technique that directly implicated the reinforcement of the applications barrier to entry — Microsoft's ability to stop porting its Office productivity suite to the Apple Macintosh platform — the RPFJ permits Microsoft to retain the ability to repeat that threat in slightly altered contexts.

### A. DOJ's Effort To Minimize The Scope Of The D.C. Circuit's Affirmance Cannot Obscure The Failure Of The RPFJ To Remediate Clear, Proven Violations

DOJ has tried to lower the bar for approval of its proposal by minimizing the most significant appellate imposition of monopolization liability in the past half-century, and adopting Microsoft's crabbed view of its own liability. In Senate testimony, Assistant Attorney General James made the remarkable assertion that the D.C. Circuit, despite affirming "the District Court's holding that Microsoft violated § 2 of the Sherman Act in a variety of ways," 253 F.3d at 59, somehow precluded any consideration, for remedial purposes of Microsoft's astonishing anticompetitive campaign as a whole. See James Testimony 5. To the contrary, the court of appeals never rejected the common-sense notion that "Microsoft's specific practices could be viewed as parts of a broader, more

general monopolistic scheme"; much less did the court of appeals insist (or even hint) that "Microsoft's practices must be viewed individually" for all purposes. *Id.* Rather, the court of appeals clearly considered some illegal acts in the context of others. Thus, the court held that Microsoft's exclusive contracts with ISVs, though affecting only "a relatively small channel for browser distribution," had "greater significance because * * * Microsoft had largely foreclosed the two primary channels to its rivals." 253 F.3d at 72.

The D.C. Circuit's examination of the divestiture remedy is telling. If the many *separately illegal* monopolistic acts could not be viewed as cumulatively contributing to the illegal maintenance of Microsoft's monopoly, divestiture would have been an unthinkable remedy, since no specific act held illegal on appeal changed the structure of the company or of the market. But the court of appeals recognized that divestiture could be justified if the *many* separate illegal acts, taken together, were shown to have had a sufficiently certain causal connection to justify using structural relief to undermine, if not end, the monopoly. See 253 F.3d at 80, 106-107.

The court of appeals did "reverse [the] conclusion that Microsoft's course of conduct *separately* violates § 2 of the Sherman Act." 253 F.3d at 78 (emphasis added). But the reversal occurred because the district court purported to find that a series of acts that did *not* constitute separate, free-standing antitrust violations had a "cumulative effect * * * significant enough to form an independent basis for liability" — but never specified acts *other* than those that separately violated Section 2 that might be aggregated into such a violation. *Id.*

It is a remarkable leap from this unremarkable holding to the absurd notion that Microsoft's extraordinary series of *separate adjudicated antitrust violations* cannot be

considered together for *any* purpose. Even the CIS recognizes that those violations are part of one coordinated and "extensive pattern of conduct designed to eliminate the threat posed by middleware." CIS 11, 66 Fed. Reg. 59,462. They should be remedied as such.

### B. The RPFJ Simply Restates The Antitrust Laws At Critical Points And Thus Forfeits The Clarity And Efficiency Of The Contempt Process

Another striking feature of the RPFJ is its repeated reliance on a *reasonableness* standard of conduct that simply imports full rule-of-reason analysis under the antitrust laws. Antitrust remedies, like other injunctive decrees, are supposed to be amenable to swift and sure enforcement, according to standards that give warning of what is forbidden and what is permitted both to the wrongdoer and to its potential victims. But the RPFJ would regularly require the decree Court to determine whether Microsoft's conduct was "reasonable." For example, the Court would have to determine

* whether volume discounts were "reasonable" or exclusionary (RPFJ § III(B)(2));

* whether technical requirements for the bootup sequence that Microsoft imposed on OEMs were "reasonable" (*id.* § III(C)(5));

* whether the terms on which Microsoft makes Communications Protocols available are "reasonable" (*id.* § III(E));

* whether exclusivity requirements imposed on ISVs were "reasonable" in "scope and duration" (*id.* § III(F)(2)); see also *id.* § (III(G)(2));

* whether technical requirements designed to force the invocation of Microsoft Middleware despite contrary consumer or OEM preferences are "reasonable" (*id.* § III(H)(2)[second]);

* whether the licensing terms accompanying required disclosures, and terms of

mandatory cross-licenses required for access to the disclosures, are "reasonable" (*id.* §§ III(I)(1), III(I)(5));

* and whether Microsoft's bases for excluding ISVs from access to security-related protocols are "reasonable" (*id.* § III(J)(2)(b)-(c)).

It is telling that the RPFJ states so many of its provisions in terms that simply duplicate the antitrust rule of reason. Rule of reason disputes are notoriously difficult to litigate, see *Arizona* v. *Maricopa County Medical Soc.*, 457 U.S. 332, 343 (1982) (noting "extensive and complex litigation" involving "elaborate inquiry" at "significant costs"), — and difficult for plaintiffs to win. These provisions add nothing to the antitrust laws themselves, either in clarity of obligation or in efficiency of enforcement. That is no remedy at all.

### C. The RPFJ Provides No Remedy For Microsoft's Suppression Of The Browser And Java.

As noted above, perhaps the most glaring deficiency of the RPFJ is that it does nothing to restore the competitive threats to Windows posed by the Internet browser and cross-platform Java. That cannot be an oversight. The bulk of the evidence, and much of the opinion of the court of appeals affirming liability, focused on Microsoft's successful efforts to suppress these threats to the applications barrier to entry. See *Microsoft III*, 253 F.3d at 58-78. Even the CIS recognizes the primacy of these products in the case. See CIS 10-17, 66 Fed. Reg. 59,462-463.

Yet the RPFJ does not change the competitive picture for either product in the least. The RPFJ does not *deprive* Microsoft of these "fruits" of its illegal conduct, but instead takes that illegal conduct, and the advantages derived from it, as a tacit *baseline* for future competition. The RPFJ leaves Microsoft with the full benefit not only of the

years of insulation from the competitive threats posed by those products, but also of the expanded power it has accumulated by incorporating Internet Explorer into the Windows monopoly. Microsoft thus has more, and stronger, weapons to suppress any middleware threats that it identifies in the future, since its monopoly control over the browser — now labeled part of the Windows monopoly product — provides Microsoft with complete control over the universal client for Internet computing. The RPFJ's approach is like sentencing a bank robber to probation, but letting him keep his weapons and the loot.

But the RPFJ's failure to provide relief that restores the specific competitive threats that Microsoft illegally suppressed is worse than that. In a platform technology market like that for PC operating systems, single standards tend to prevail, so that only sweeping changes can dislodge the incumbent. Platform threats are very rare. It could easily be another five or ten years or more before a comparable threat arises again; certainly no threat of similar strength to the Internet browser or Java has surfaced in the nearly seven years since Microsoft began the course of illegal conduct condemned by the court of appeals. See Stiglitz/Furman Dec. 35-36. That is what makes anticompetitive conduct directed at them so potentially profitable. The RPFJ makes that conduct profitable beyond any rational actor's wildest dreams, and greatly increases the incentives for its repetition. Having been caught illegally suppressing two related platform threats, Microsoft retains all the benefits that it sought through its illegal acts.

By eliminating Navigator, Microsoft has not only eliminated consumer choice in browsers, but it also seized the power to control the interfaces and protocols through which an enormously valuable set of Internet applications — ranging from instant messaging and e-mail to streaming video and e-commerce — are delivered to desktop

computers and other digital devices. Microsoft's Internet Explorer is now the bottleneck through which all Internet-related middleware must pass. Instant messaging and media player technology are equally dependent on browser software. Microsoft has also seized the power to decide whether that browser functionality will be ported to any competing operating system, and, if so, to which ones. Finally, in destroying Navigator, Microsoft has also destroyed an important alternative distribution channel, one free of Microsoft's control or influence, through which Microsoft's competitors could formerly distribute middleware runtimes and products to desktop consumers and application developers.

Although Navigator has practically disappeared from the competitive scene, Java has not. But Java's importance has been limited to servers, where Microsoft has a leading share but not yet an operating systems monopoly. Microsoft's conduct appears to have assured that Java will not function as cross-platform middleware for *client* computers. Java thus poses no threat to the desktop OS monopoly. But the RPFJ lets Microsoft keep that anticompetitive benefit of its conduct.

## IV. THE ICON-FOCUSED OEM FLEXIBILITY PROVISIONS ARE INEFFECTIVE

RPFJ §§ III(H)(1)-(2)[first] superficially allow OEMs and end users to rearrange icons and menu entries relating to middleware.[10] These provisions are hollow, however. Section III(H)(1) duplicates only what Microsoft unilaterally agreed to permit OEMs to do back on July 11, 2001. And the end-user provisions simply restate and preserve end-users' longstanding options to delete icons and menu entries if they right-click and delete or drag the icon or menu entry to the Recycle bin. The default provisions in Section III(H)(2) are so limited, and so fully subject to Microsoft's architectural control, as to be

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[10] See n.2, *supra.*

competitively meaningless as well.

The icon provisions do not adequately address the competitive harms of Microsoft's adjudicated misconduct because Microsoft remains able to ensure that the Microsoft versions of middleware will appear, ready to be invoked by applications, on every PC. Even if the icon provisions had greater competitive significance in theory, they are unlikely to have any significance in fact, because few if any OEMs are likely to take advantage of the options provided. DOJ cannot claim to be unaware of this market reality. These provisions are mere window-dressing. See Stiglitz/Furman Dec. 35.

### A. The PFJ Permits Microsoft's To Continue Illegally Commingling Middleware Code With The Code For The Monopoly Operating System

The RPFJ capitulates on DOJ's most hard-fought and significant substantive victory: the finding that Microsoft illegally preserved its monopoly by commingling the middleware code with the operating system, foreclosing the competitive threat to Windows while effectively expanding the scope of the monopoly to encompass middleware. DOJ's inability to enforce the 1995 consent decree against the binding of IE to Windows, see *United States* v. *Microsoft*, 147 F.3d 935 (D.C. Cir. 1998) ("*Microsoft II*"), was widely viewed as prompting this action. The conduct itself was viewed as the most successful in furthering Microsoft's anticompetitive goals.

Rather than repeat and strengthen the prohibition in the 1995 decree that failed to achieve its goals, the RPFJ does not even impose the type of superficial prohibition applied to other conduct condemned at trial and on appeal. To the contrary, under the RPFJ, the operating system is whatever Microsoft says it is, and Microsoft can commingle any new product to the monopoly product — foreclosing competition for the OS and the new product alike. See Stiglitz/Furman Dec. 34-37. Not only does Microsoft

preserve its anticompetitive gains, but it obtains a green light to repeat the same conduct to destroy any new middleware threats. In a market characterized by serial dominance, an incumbent monopolist may need only to suppress one threat every few years in order to make its monopoly virtually permanent. Cf. *id.* at 35-36. A continued ability to commingle middleware gives Microsoft limitless tenure over the OS market. If Microsoft emerges from this case free to bind middleware to the OS, this action will be an exercise in futility.

### 1. *The DC Circuit Specifically Condemned Commingling Twice*

DOJ's victory on the commingling point was crystal clear, and repeatedly underscored by the court of appeals. The court of appeals recognized that "Microsoft's executives believed" that "contractual restrictions placed on OEMs would not be sufficient in themselves" and therefore "set out to bind" IE "more tightly to Windows 95 as a technical matter." *Microsoft III*, 253 F.3d at 64 (quoting *Findings*, 84 F. Supp.2d at 50 (¶ 160)). In the CIS (and in Assistant Attorney General James' Senate testimony), DOJ appears to assume that icon-based relief that subjects some Microsoft Middleware Products to the Add/Remove utility equates with relief for commingling code. Thus, the CIS blends the two offenses in stating that Microsoft violated Section 2 when it "integrated Internet Explorer into Windows in a non-removable way while excluding rivals." CIS 7, 66 Fed. Reg. 59,461. In affirming liability for both courses of conduct, however, the court of appeals clearly distinguished between Microsoft's "excluding IE from the 'Add/Remove Programs' utility" and its "commingling code related to browsing and other code in the same files." 253 F.3d at 64-65, 67. The court of appeals found no justification for commingling code or, indeed, more broadly, for "integrating the browser and the operating system." *Id.* at 66. One could hardly ask for a clearer statement.

Microsoft argued bitterly against liability for commingling, and for a declaration that its product design decisions were beyond the reach of the antitrust laws. Instead, the D.C. Circuit pointedly rejected Microsoft's argument that it "should vacate Finding of Fact 159 as it relates to the commingling of code." *Microsoft III*, 253 F.3d at 66; see *Findings*, 84 F. Supp.2d at 49-50 (¶ 159). And the court of appeals "conclude[d] that *such commingling has an anticompetitive effect*," because it "deters OEMs from pre-installing rival browsers, thereby reducing the rivals' usage share and, hence, developers' interest in rivals' APIs as an alternative to the API set exposed by Microsoft's operating system." 253 F.3d at 66 (emphasis added). See generally *id.* at 64-67. That is, commingling helps reinforce the applications barrier to entry that shields the Windows monopoly.

The D.C. Circuit's holding reflected a principle of critical importance to the enforcement of the antitrust laws in the software industry, where the complementarity of different programs makes product design a potentially devastating weapon to foreclose competition: a "monopolist's product design decisions" can violate the antitrust laws just as any other economic conduct can. 253 F.3d at 65. Product design decisions may be grossly anticompetitive, particularly in the software industry where lines of code can be packaged (and marketed) in many different ways without affecting the operation of programs once they are installed. As Microsoft's James Allchin recently acknowledged, software "code is malleable," so that "[y]ou can make it do anything you want." *Microsoft Net Profit Fell 13% in Recent Quarter*, Wall St. J. Europe, Jan. 18, 2002, 2002 WL-WSJE 3352885 (quoting Allchin).

Lest there be any doubt on the matter, the court of appeals flatly rejected Microsoft's rehearing petition aimed squarely at the remedial issue. Microsoft

specifically sought to preclude relief that addressed the commingling violation, and instead to treat the commingling and the lack of add/remove functionality as the same. Microsoft's rehearing petition made clear that the "ruling with regard to 'commingling' of software code is important because it might be read to suggest that OEMs should be given the option of removing the software code in Windows 98 (if any) that is specific to Web browsing [as opposed to] removing end-user access to Internet Explorer." Appellant's Petition for Rehearing, at 1-2 (July 18, 2001). Microsoft argued that affirmance only on the ground of the add/remove issue would ensure that the remedy was tightly confined, because the "problem will be fully addressed by including Internet Explorer in the Add/Remove Programs utility, which Microsoft has already announced it will do in response to the Court's decision." *Id.* at 2.

The court of appeals rejected this argument out of hand, adding this remarkable sentence in a terse per curiam order denying rehearing: "Nothing in the Court's opinion is intended to preclude the District Court's consideration of remedy issues." Order at 1 (D.C. Cir. Aug. 2, 2001) (per curiam). Nonetheless, the RPFJ would settle this case as if rehearing had been granted, requiring Microsoft only to allow OEMs and end users to "add/remove" the icons for middleware. This is insufficient to remedy technological binding — commingling □ since it does nothing to remove the underlying middleware code on which developers will continue to rely. If only the Internet Explorer icon is removed from the desktop, the IE middleware remains, and with it the same applications barrier issues that Microsoft preserved by stifling competition by Netscape and Java.

It is true that the interim conduct relief in the vacated Final Judgment required only that Microsoft offer an operating system where OEMs and end-users were permitted

to remove end-user access to the middleware components, *United States* v. *Microsoft Corp.*, 97 F. Supp.2d 59, 68 (D.D.C. 2000), vacated, 253 F.3d 34 (D.C. Cir. 2001), a provision similar to that in RPFJ § III(H)(1)[first]. That transitional provision of course assumed the existence of structural relief that would remove Microsoft's economic incentive to bind middleware to the OS unless the binding was independently justifiable. Without a structurally more competitive market, those modest provisions would be meaningless, and would permit Microsoft to follow much the same course that triggered the lawsuit.

There is no excuse for DOJ's failure to do *anything* about one of the principal, and most easily replicable, violations in the case. Even one of Microsoft's vocal, libertarian defenders, University of Chicago law professor Richard Epstein, recognized that the minimum plausible remedy after the D.C. Circuit decision would involve "undoing a few product-design decisions." Richard Epstein, *Phew!*, Wall. St. J., June 29, 2001, at A10. But DOJ did not even insist on that. Instead, the RPFJ's omission of *any* relief for this violation gives Microsoft something the D.C. Circuit twice refused: a victory on the hardest-fought legal issue in the case. Given the central importance of middleware to the theory of the case, failing to address the principal means by which Microsoft bundled browser middleware to Windows would be plainly inadequate.

### 2. *The Failure To Limit Commingling Is Critical Because Ubiquity Trumps Technology In Platform Software Markets*

The failure to prohibit commingling of middleware deprives the RPFJ of any significant procompetitive effect on the emergence and adoption of competing platform software. The critical competitive phenomenon in this case was not middleware in itself, but rather the potential, and deeply feared, development of particular middleware into a

competing platform for software applications. Middleware can develop into a competing applications platform by attracting software developers to use its Application Programming Interfaces (APIs) in preference to, or at least in addition, to the APIs offered by Microsoft in Windows. Developers will write their applications to invoke particular APIs — *i.e.*, to run on a particular platform — based on how widely available the APIs will be.

Although potential platform software *not* distributed by Microsoft must attract users in order to achieve the widespread availability of their APIs that will attract developers, it is the expected presence of the APIs that matters, not how much consumers directly use the application exposing the APIs. *Non*-Microsoft middleware depends on the availability of the *application* in order to gain the critical mass of users that, in turn, may attract developers.

The availability and prominence of the application's icon may be significant for the purpose of attracting end-users. In platform competition, however, the availability of the application is only a means to the desired end. Developers don't write to icons; they write to APIs. The inclusion of Microsoft Middleware functionality in every copy of Windows is determinative, regardless of how or whether the icons are featured, and regardless even of the presence of the user interface or shell.[11] If developers know that the plumbing for a Microsoft version of middleware will be on *every* PC because it is commingled with Windows, then developers will write to the Microsoft version's APIs. Because the RPFJ permits Microsoft to include the APIs accompanying the software

[11] The user interface is especially insignificant because the browser window already can serve as the user interface for many products, and could easily be adapted to serve as the user interface for many more.

functionality that mimics middleware that is a potential platform threat, Microsoft will be able to defeat any middleware threat in exactly the same way it destroyed the threat of Netscape and Java on the PC desktop. See Stiglitz/Furman Dec. 36.

Under the RPFJ, developers will continue to assume that Windows Media Player, for example, is present on every computer. This will be true regardless of whether "end user access" is removed, because the remedy does not require Microsoft to remove the middleware. The result is that software developers will write applications to, for example, the Windows Media Player APIs, rather than to the APIs supplied by rival platforms. That is an advantage that no competitor can overcome.

It is no answer to say that OEMs can offer rival middleware even if the code for a Microsoft version of the same product is commingled with Windows, so that the Microsoft version of middleware appears on every desktop PC. If Microsoft's version of a product is everywhere, few OEMs will go to the effort of providing another product that does largely the same thing. The district court and court of appeals alike recognized that OEMs faced strong disincentives to install *two* competing products with similar middleware functionality, disincentives arising largely from support costs and disk space. See 84 F.Supp.2d at 49-50, 60-61 (¶¶ 159, 210); 253 F.3d at 61. If the Microsoft Middleware is there, the OEM will have to support it, even if — perhaps especially if — the end-user does not know that it is there.

Thus, rival middleware cannot undermine Microsoft's monopoly unless (1) the rival middleware is ubiquitous, or (2) the Microsoft version is *not* ubiquitous. If developers do not feel compelled to write to the rival middleware as well as the Microsoft middleware, the rival middleware will not undermine the monopoly. And if Microsoft's

version of particular middleware can be ubiquitous by virtue of its inclusion in the monopoly operating system, as the RPFJ plainly allows, there is virtually no likelihood that rival middleware will ever achieve the ubiquity needed to present a platform challenge. See Stiglitz/Furman Dec. 36-37; see generally Litan/Noll/Nordhaus Comment 44-47.

### 3. *The RPFJ Retreats From The 1995 Consent Decree*

Microsoft uses Windows as an instant, universal distribution channel for Microsoft software that represents a response to a threat to the dominance of Windows as a program development platform. As a consequence, "Windows" has become whatever bundle Microsoft needs it to be to forestall competition. The 1995 Consent Decree contained a prohibition on contractual tying of applications to the operating system in order to prevent anticipated conduct that would maintain the operating systems monopoly by anticompetitive means. That the earlier provision failed in its purpose suggests that the provision should be broader, not that it should be abandoned, particularly since this case began as a way to stop conduct that had escaped summary condemnation under the earlier decree. It would be senseless as a matter of enforcement policy to bring and win an action prompted by an evasion (if not a violation) of a monopolization consent decree, win the case on the monopolization theory most closely related to the object of the earlier consent decree, and then reward the violator by removing the relevant restriction upon the expiration of the earlier decree rather than broadening it as proposed here.

Microsoft's monopoly gives it the power to make all systems integration and software bundle decisions, a power that Microsoft is exercising more broadly, as the breadth of the Windows XP bundles clearly illustrates. The RPFJ should not step *back* from the 1995 Consent Decree.

#### 4. *The RPFJ Encourages Illegal Commingling By Placing The Critical Definition of Windows Under Microsoft's Exclusive Control.*

But the RPFJ does step back from the 1995 Decree, and makes matters still worse. Not only does the RPFJ completely fail to *prevent* future illegal commingling, but it effectively *approves* that conduct by permitting Microsoft "in its sole discretion" to "determine[]" exactly which "software code comprises [sic] a Windows Operating System Product." RPFJ § VI(U). That provision permits Microsoft an unearned advantage in repelling any future challenges to illegal commingling of applications code with Windows. Were the Court to enter this provision as part of its judgment, Microsoft could point to DOJ's capitulation on this issue — and the Court's approval — as extraordinarily persuasive evidence that its monopoly product was as broad as it says it is, and that, despite the contrary holding of the D.C. Circuit, any commingling of an application with the operating system is *per se* legal.

The Court can and should disapprove provisions that appear to endorse practices of apparent anticompetitive effect and dubious legality. *Thomson Corp.*, 949 F. Supp. at 927-930 (refusing to approve fee schedule for mandatory license for legally dubious copyright). The Court should not approve this provision, which defangs many of the other obligations in the RPFJ.

Rather than learning from the difficulties with the "integration proviso" in that Decree, DOJ has ceded the issue to Microsoft, permitting Microsoft to decide for purposes of the decree obligations where the OS stops and where middleware begins. Much of the RPFJ rests on the relationship between the Windows OS and middleware. But the RPFJ places Microsoft firmly in control of every technical aspect of the proposed decree by permitting Microsoft absolute control over the definition of "Windows

Operating System Product." That subjects many of Microsoft's purported obligations to Microsoft's own discretion.

No term is more important in the RPFJ than "Windows Operating System Product," which appears fully 46 times in the RPFJ: 26 times in the descriptions of substantive obligations, and 20 times in the definitions that circumscribe those obligations. The definition of Application Programming Interfaces (APIs) is the starkest example. "Windows Operating System Product" appears three times among the 41 words of the API definition. See RPFJ § VI(A.). Thus, Microsoft can determine "in its sole discretion" what an API is, and thus what must be disclosed.

One would think that DOJ would do everything possible to ensure that a new decree did not contain an analogue to the "integration proviso" that nullified much of the anti-tying provision of the 1995 decree. See generally *Microsoft II*, 147 F.3d 935. Instead, Section VI(U) ensures that few, if any, of the technical provisions of the RPFJ will mean anything except what Microsoft wants them to mean, and that none can be enforced without lengthy litigation that will further shrink the tightly limited duration of the proposed relief.

### B. Empirical Evidence Shows That The Icon Flexibility Provisions Will Not Be Used

Not only do the icon flexibility provisions address the wrong problem, but the market already has tested their consequences. On July 11, 2001, Microsoft announced that OEMs and end users would be permitted to remove access to Microsoft's Internet Explorer browser, just as RPFJ § III(H)(1) permits. As of this writing, not one OEM has availed itself of this new liberalized policy. Windows XP is shipping with Internet Explorer on every single personal computer shipped by every single OEM. This real-

world experience speaks volumes about the practical significance of this relief.

### C. The Icon Flexibility Provisions Require — And Accomplish — Little

1. The icon flexibility provisions do not permit OEMs to swap out Microsoft Middleware *Products* and replace them with other products. Rather, the OEMs at most can hide the Microsoft *icon*, but need to be prepared to support the underlying Microsoft software when another software application invokes it. That means that these provisions do not address the added "product testing and support costs" that discourage OEMs from including more than one version of particular functionality. *Microsoft III*, 253 F.3d at 66.

This is a step backward from DOJ's settlement posture before liability was established. At that time, DOJ insisted that OEMs be allowed to alter or modify Windows, and that Microsoft provide OS development tools for that purpose. See Draft 18, §§ 4(1)(d), 4(g). The RPFJ provisions, by contrast, only permit OEMs to display icons, shortcuts, and menu entries for Non-Microsoft Middleware. The RPFJ does not require Microsoft to permit OEMs to remove any Microsoft Middleware Products, although even current Microsoft practice permits this. The RPFJ requires Microsoft only to allow the removal of "icons, shortcuts, or menu entries." RPFJ § III(H)(1)[first].

2. Section III(H)(2)[first] seems to permit OEMs and end-users to choose default middleware for particular functions. Microsoft's obligations are far less than they appear.

The provision applies only where a Microsoft Middleware Product would launch into a top-level display window (rather than operating within another interface) *and* would either display "*all* of the user interface elements" or the "Trademark of the Microsoft Middleware Product." RPFJ § III(H)(2)(i)-(ii) (emphasis added). Thus, the provision does not apply if Microsoft designs the slightest variation on the interface elements that launch from within another application, so long as the trademark also is not

displayed in the top-level window. These do not present serious programming challenges. Microsoft's ability to preclude OEM installation of desktop shortcuts that "impair the functionality of the [Windows] user interface" (RPFJ § III(C)(2)) provides another, largely unreviewable set of opportunities to impede the use of innovative shortcuts to innovative software. Microsoft asserted similar reasons to defend some of the conduct condemned by the D.C. Circuit. See *Microsoft III*, 253 F.3d at 63-64. The D.C. Circuit rejected Microsoft's approach, but the RPFJ adopts it.

3. As explained above, the code beneath the surface is critically important to the success of middleware in undermining the applications barrier to entry in the OS market. The RPFJ contains exceptions that ensure that, however icons may be displayed on the surface, Microsoft Middleware will be firmly (and unchallengeably) established in the plumbing of each PC.

Sections III(H)(1)-(2)[second], undo what might be left of the obligations earlier in Section III(H). Section III(H)(1)[second] permits Microsoft to ensure that Microsoft Middleware Products are invoked whenever an end-user is prompted to use Microsoft Passport or the group of Microsoft web services now known as Hailstorm. Section III(H)(2)[second] ensures that Microsoft need only program in functions that invoke Active X or other similar Microsoft-proprietary implementations of common functions, in order to ensure that Microsoft Middleware Products constantly appear regardless of an end-user's stated preferences. And *none* of the provisions in Section III(H) would apply unless the corresponding Microsoft Middleware Products existed seven months before the last beta version of a new Windows release. As with other provisions, Microsoft would be constrained by these requirements only if it paid no attention to them when it

decided when and how to release its products.

### D. The 14-Day Sweep Provision Effectively Nullifies RPFJ § III(H)

Even if these provisions otherwise might mean something, the RPFJ ensures that they will be competitively meaningless by permitting Microsoft to nag users to give permission for Microsoft to override any array of non-Microsoft icons and menu entries 14 days after the initial boot-up of a PC. See RPFJ § III(H)(3). Thus, Microsoft only needs to prompt users with a dialog box inviting them to "optimize the Windows user interface" every time they boot up, or when they download the inevitable bug fixes and security patches among Windows updates, in order to undo any OEM's or end-user's customization of icons. Microsoft apparently provided DOJ with the name for this feature, which DOJ uses in the CIS: "Clean Desktop Wizard." CIS 48, 66 Fed. Reg. 59,471. What user would not agree to have a cleaner desktop? No ISV is likely to pay an OEM a fee sufficient to cover the trouble of rearranging icons, and supporting additional software, for the privilege of having non-Microsoft software icons displayed advantageously for as little as two weeks.

The CIS suggests that the ability of Microsoft to sweep away icons of competing middleware and other products 14 days after a computer first boots up (RPFJ § III(H)(3)) applies only to "unused icons" (CIS 48, 66 Fed. Reg. 59,471), but the decree terms contain no such limitation. Once its "Clean Desktop Wizard" (*id.*) secures a click of user consent, Microsoft can hide *any* icons that offend it. Indeed, there is nothing in the RPFJ that would stop Microsoft from including similar "wizards" that would prompt users to reset middleware defaults, or even to remove Non-Microsoft Middleware," in order to "optimize performance" or to "take full advantage of powerful new Windows features."

### E. By Placing The Burden To Restore Competition On OEMs, The PFJ Leads To No Remedy At All For Much Of The Misconduct At Issue

One of the most misguided elements of the RPFJ is its allocation to OEMs, ISVs and end-users of the primary responsibility for injecting competition into the OS market. The icon and default flexibility provisions of the RPFJ allocate to the OEMs almost all of the financial risk and responsibility for remediating Microsoft's antitrust violation, while the monopolist has no obligations except to allow others to make changes to hide (or add to) Microsoft's middleware. That approach ignores the fact that OEMs are motivated by their own fiduciary and economic considerations, not by the drive to remedy a monopolization offense. OEMs are risk-averse, as they operate in a low-margin, highly competitive environment in what has become a commodity-product market. In that environment OEMs are highly dependent on the good graces of Microsoft, not only for favorable pricing on Microsoft's monopoly software products □ Office as well as Windows □ but also for timely technical assistance, and access to technical information.

The Stiglitz/Furman Declaration confirms (at 32-34) that the economics of the OEM industry — a commodity industry captive to a bottleneck monopolist — discourage expenditures of this kind. It is bizarre and counterproductive to place the burden to restore competition on the innocent, low-margin OEMs rather than the monopolist. The "hapless makers of PCs" still "aren't in any position to defy Microsoft," Walter Mossberg, *For Microsoft, 2001 Was A Good Year, But At Consumers' Expense*, Wall. St. J., Dec. 27, 2001, at B1, any more than they were when the illegal conduct in this case first occurred. See, *e.g.*, *Findings*, 84 F. Supp.2d at 62 (¶ 214) (Hewlett-Packard observation to Microsoft that "[I]f we had a choice of another supplier, * * * I assure you [that you] would not be our supplier of choice"). But if OEMs choose not to exercise

their new "flexibility" under the middleware provision □ a choice that seems likely in view of the demonstrated lack of a response to Microsoft's offer of July 11, 2001 □ the government is left with no antitrust remedy for much of its case.[12]

Nor can ISVs be expected to pay OEMs to take advantage of the limited flexibility provided by RPFJ §§ III(C) and III(H). The RPFJ gives ISVs very slight incentives to subsidize OEM alterations of Microsoft's preferred desktop display, since the ISVs who sell middleware that competes against a Microsoft offering cannot buy exclusivity on the desktop of any computer. Rather, at best an ISV can obtain parity in the availability to developers of its middleware's code. No matter what ISVs and OEMs do, Microsoft Middleware will be ubiquitous. And ISVs could buy only 14 days of advantageous icon display before a Microsoft "Clean Desktop Wizard" (CIS 48, 66 Fed. Reg. 59,471) would begin prompting users to undo the OEM's arrangement of icons and reinstate the arrangement favored by Microsoft. No ISV would pay more than a pittance for such a shallow and short-lived advantage on the desktop.

### F. The RPFJ Permits Microsoft To Control Consumers' Access To Innovation To Suit Its Monopolistic Aims

The RPFJ allows Microsoft to exercise full control over the pace of innovation in middleware because Microsoft can ensure that consumers are denied access — or have only severely impeded access — to competitively threatening middleware products to which Microsoft has no analogue. Section III(C)(3) allows Microsoft to prohibit OEMs from configuring PCs to launch non-Microsoft middleware from any point unless

[12] Similarly, the RPFJ places no limits on Microsoft's conduct toward one of its largest current groups of licensees — direct corporate licensors of bulk Windows licenses. The corporate market has always been Microsoft's point of leverage, and those buyers now often buy direct. Microsoft has made clear its intention to make Windows and other software a renewable "service." Microsoft can undo all of the provisions applying to OEMs upon the first license renewal with an end-user.

Microsoft already has a competing product that launches from that point. Microsoft can prohibit OEMs from configuring non-Microsoft middleware from launching automatically at the end of the boot sequence or upon the opening or closing of an Internet connection unless a Microsoft Middleware Product with similar functionality would launch automatically. RPFJ § III(C)(3).

Even after this catch-up provision serves its delaying purpose, Microsoft can control how competing middleware products reach and serve consumers, so that products launch only in the way that best suits Microsoft. This provision appears designed to *protect* Microsoft from competition, and to give the monopolist a clear imprimatur to control the pace of innovation. See Stiglitz/Furman Dec. 28.

## V. THE API AND COMMUNICATIONS PROTOCOL DISCLOSURE PROVISIONS ARE INEFFECTIVE

### A. The API Provisions Require Little, If Anything, Beyond Current Disclosure Practices In Microsoft's Self-Interest

The API and Communications Protocol disclosure provisions (§§ III(D)-(E)) contain little in the way of hard, fast, enforceable obligations, and do not appear to add anything significant to Microsoft's current disclosure practices. As the CIS recognizes:

> Through its MSDN [Microsoft Developer's Network] service, Microsoft presently makes widely available on the Internet an extensive and detailed catalog of technical information that includes, among other things, information about most Windows APIs for use by developers to create various Windows applications. MSDN access is presently broadly available to developers and other interested third parties.

CIS 34, 66 Fed. Reg. 59,468.

Microsoft already discloses literally thousands of APIs to software developers through MSDN for the good reason that it is in Microsoft's self-interest to promote the Microsoft Windows platform to software developers. The extent of information

disclosure required by the RPFJ must be understood in the context of Microsoft's current information disclosure practices. A "requirement" that Microsoft disclose APIs for the most part simply "requires" that Microsoft do what it does voluntarily.

Microsoft has a business incentive not only to disseminate Windows APIs but to assist ISVs in understanding and implementing Windows APIs in their products. Microsoft and other platform software vendors compete to attract developers by disclosing technical information, creating easy-to-use development tools, and "evangelizing" their development platforms. Attracting developers helps Microsoft perpetuate the substantial network effects that produce the applications barrier to entry protecting the Windows monopoly. Because the strength of the Windows monopoly and the power of the applications barrier to entry are directly related to the number of developers writing applications for Windows, it is in Microsoft's interest to provide a robust information disclosure program.

By widely disclosing APIs, Microsoft ensures that applications will continue to be written for its platform software rather than for rival platforms. Properly understood, Section III(D) does not actually require Microsoft to provide any new disclosure of APIs and technical information to promote interoperability; Microsoft already engages in these disclosures. Rather, the incremental effect of the API disclosure provisions of the RPFJ is at most to prevent Microsoft from selectively withholding certain APIs from certain vendors. As explained below, however, the disclosure "requirements" in the RPFJ are too insubstantial and too easily manipulated to accomplish even that limited goal.

### B. The RPFJ Does Not Require Disclosure of Windows APIs, But Rather Lets Microsoft Determine The Scope of Disclosure Through The Design and Labeling of Its Operating System And Middleware

To begin with, the API disclosure requirements aim at the wrong thing. The RPFJ

defines APIs as the interfaces used by Microsoft Middleware to invoke resources from a Windows Operating System Product. RPFJ § VI(A). But innovative rival software vendors do not need APIs between Microsoft Middleware and Windows. The really threatening innovators are threatening precisely because their products perform functions that Microsoft's do not. In those cases, by definition, there will not be any fully analogous Microsoft middleware — just as Microsoft did not have an Internet browser when Netscape Navigator first appeared. Those developers need full access to *Windows* APIs — APIs for all functionalities enabled by the Windows platform, whether Microsoft calls them "internal" calls within Windows or external APIs that may be distributed to ISVs — not to the limited subset used by a Microsoft version of similar middleware.

That is what Netscape needed in 1995; there *was* no Internet Explorer to speak of at that time, and certainly Microsoft's rudimentary browser did not perform anywhere near the range of functions performed by Netscape Navigator. See *Findings*, 84 F. Supp.2d at 31-32 (¶¶ 82-84), 33-34 (¶¶ 91-92). The RPFJ provisions would not have helped Netscape then. See Letter from James L. Barksdale, former CEO of Netscape, to Chmn. Leahy & Sen. Hatch, Senate Comm. on the Judiciary, Attachment, Question 1 (Dec. 11, 2001).[13] And they will not help any software developer whose products exceed the functionality of existing Microsoft middleware. The API disclosure provisions in the RPFJ thus ensure that Microsoft can control the pace of middleware innovation, providing another level of assurance that non-Microsoft products will not gain the type of head start that might result in ubiquity before a similar Microsoft product can be included

[13] Mr. Barksdale's letter in lieu of hearing testimony is available at http://java.sun.com/features/2002.01.barksdale-letter.html, and the attachment is available at http://java.sun.com/features/2002.01.barksdale-attach.htm

in the bundle of products sold with every Windows operating system.

That limitation on API disclosure is severe enough. But it is just a beginning. The disclosure obligation is further limited by the definition of APIs at RPFJ § VI(A):

> "Application Programming Interfaces (APIs)" means the interfaces, including any associated callback interfaces, that Microsoft Middleware running on a Windows Operating System Product uses to call upon that Windows Operating System Product in order to obtain any services from that Windows Operating System Product.

Setting aside the circularity, the malleability of the two principal defined terms renders this definition (and the corresponding obligations) a practical nullity. The API definition depends on the relationship between two "products," each of which is defined solely by Microsoft. As noted above, Microsoft has "sole discretion" to identify software code as part of a "Windows Operating System Product." RPFJ § VI(U). Many APIs can disappear from view simply as a result of Microsoft's unreviewable decision to relabel certain interfaces as internal to Windows. If Microsoft says that an operation takes place entirely within Windows, rather than requiring the interaction of a middleware and Windows, then there is no API to disclose.[14]

### C. The Definition of "Microsoft Middleware" Gives Microsoft Further Leeway to Limit Its Disclosure Obligation

The only APIs that need be disclosed are those used by "Microsoft Middleware." But "Microsoft Middleware," too, is defined in a way that gives Microsoft tight control over the scope of its own obligations. Remarkably, Assistant Attorney General James testified that this definition would have been difficult for DOJ to achieve in a litigated proceeding. Statement of Charles James to Senate Judiciary Committee 8 (Dec. 12,

[14] Moreover, the term "interfaces" is not defined in the RPFJ. The CIS explains that "'[i]nterfaces' includes, broadly, any interface, protocol or other method of information exchange between Microsoft Middleware and a Windows Operating System Product." CIS 33-34, 66 Fed. Reg. 59,468. But that definition would not be part of the judgment.

2001). But it is difficult to imagine what Microsoft would have contested. Just as in the dispute whether Internet Explorer is part of Windows, Microsoft can simply relabel software as part of one product rather than another. The label does not affect the commands and operations in the software.

### 1. *The RPFJ Requires Microsoft To Disclose Only The APIs Used By The "User Interface" Or Shell Of Microsoft Middleware*

The APIs that must be disclosed are those that "Microsoft Middleware * * * uses to call upon [a] Windows Operating System Product." RPFJ § VI(A); see *id.* § III(D). But Microsoft determines how much code performing a Microsoft Middleware function is part of the Middleware, and how much is part of the Windows Operating System Product, since the latter definition is within Microsoft's "sole discretion." *Id.* § VI(U). The only code in Microsoft Middleware that Microsoft *must* consider separate for the purposes of API disclosure is the user interface, or shell, of the Middleware — or, rather, "most" of the shell. *Id.* § VI(J)(4). The only limit is that "Microsoft Middleware" must "[i]nclude at least the software code that controls most or all of the user interface elements of that Microsoft Middleware." *Id.* Thus, the terms of the RPFJ permit Microsoft to provide only the APIs that go between 51% of the user interface elements of Microsoft Middleware and the rest of the Windows bundle of products. None of the APIs used by the Middleware's functionality — the APIs that permit the Middleware perform its functions while running on Windows — need be disclosed, so long as the shell APIs are disclosed. This definition appears to be *designed* to have nothing to do with developer preferences, or with the applications barrier to entry.

### 2. *The RPFJ Requires Microsoft To Disclose APIs Only For "Microsoft Middleware" That Is Distributed Separately From Windows, Yet Is Distributed To Update Windows*

To come within the disclosure obligation, Microsoft Middleware must be "distributed separately from a Windows Operating System Product." That restriction alone is enough to take Windows Media Player 8 outside the definition, as that product is available only as part of the Windows XP bundle. But not all separate distributions prompt the API obligations; Microsoft must characterize the distribution as one that "update[s] th[e] Windows Operating System Product." See RPFJ § VI(J)(1). Thus, the scope of the obligation depends entirely on the labeling of the product, which Microsoft can easily manipulate.

### 3. *The Limitation Of Microsoft Middleware To "Trademarked" Products Further Eviscerates The API Disclosure Provision*

But that is not all. At least equally significant is the restriction of the Microsoft Middleware definition, and thus the API disclosure obligation, to Middleware that is "Trademarked." RPFJ § VI(J)(2). The definition of "Trademarked" allows Microsoft to exclude current middleware from the API disclosure obligation, and to prevent future middleware from becoming subject to the API disclosure obligation, simply by manipulating its use of trademarks.

#### a. *Microsoft Easily Can Ensure That Middleware Is Not "Trademarked" By Using A Generic Or Descriptive Name Combined With Microsoft® or Windows®*

The definition of "Trademarked" does *not* include "[a]ny product distributed under * * * a name compris[ing] the Microsoft® or Windows® trademarks together with descriptive or generic terms." *Id.* § VI(T). That is how Microsoft has chosen to name some of its newest and most important products: the combination of a monopoly brand

with a simple descriptive mark that helps identify an entire software function with the Microsoft implementation of it. Windows® Messenger instant messaging software is one example.

Moreover, by the terms of the RPFJ Microsoft *disclaims* any rights in the use of such combinations of the Microsoft® or Windows® marks with generic or descriptive terms, and *abandons* any rights that may be acquired in the future. RPFJ § VI(T). These provisions suggest that Microsoft can change the scope of the definition of Middleware, and thus of the API disclosure obligation, by abandoning some marks it has registered as combinations of Microsoft® or Windows® with generic or descriptive terms — if the RPFJ does not accomplish that in itself. Windows Media Player is an example. Although Microsoft has registered the combination of Windows® and the generic term "Media" as Windows Media®, at bottom the name Windows Media Player is a combination of the Windows® mark with the generic term "media player."

Indeed, Microsoft could plausibly argue that the Windows Media® mark does not come within the "Trademarked" definition as it is, since even that mark consists of no more than the Windows® mark in combination with the generic term "media."[15] RPFJ § VI(T) may therefore embody Microsoft's "disclaim[er of] any trademark rights in such descriptive or generic terms apart from the Microsoft® or Windows® trademarks." But even if Section VI(T) does not go so far, Microsoft could easily get Windows Media® Player outside of the "Trademarked" definition — and thus outside the scope of the

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[15] In this discussion we set aside the non-trivial question whether "Windows" itself is a generic, or at best descriptive, mark for the type of "windowing" graphical user interfaces invented at the Xerox Palo Alto Research Center in the 1970s, popularized by the Apple Lisa and Macintosh in the 1980s, and since used by Microsoft and many other software vendors.

disclosure obligations that apply only to "Microsoft Middleware" — simply by abandoning the registration mark and moving the registration symbol to the left. Thus, Microsoft can transform "Windows Media® Player," which might be subject to API disclosure requirements, into "Windows® Media Player," which clearly is exempt.

b. *The "Microsoft Middleware" Definition Governing Disclosure Obligations Is Far Narrower Than The "Microsoft Middleware Product" Definition Governing OEM Flexibility*

That this highly restrictive definition is no accident is clear from comparison with the "Microsoft Middleware Product" definition which governs the icon-display obligations. To provisions paralleling the "Microsoft Middleware" definition, the "Microsoft Middleware Product" definition adds several named current products, including "Internet Explorer, Microsoft's Java Virtual Machine, Windows Media Player, Windows Messenger, Outlook Express and their successors," RPFJ § VI(K)(1), although only to the extent that Microsoft "in its sole discretion" (*id.* § VI(U)) decides that those products are "in a Windows Operating System Product." *Id.* § VI(K)(1). Thus, Microsoft's icon display/removal obligations for those named products would not change merely because of a strategic product renaming or abandonment of a trademark that combines the Microsoft® or Windows® name with generic or descriptive terms. But none of those current products is named in the "Microsoft Middleware" definition that governs the disclosure obligations. That enables Microsoft to manipulate whether those products, although surely middleware, also satisfy the four subparts of RPFJ § VI(J).

c. *The CIS Broadens The "Trademarked" Definition Beyond Its Terms*

The CIS overstates the breadth of the "Trademarked" definition, contending that it

"covers products distributed * * * under distinctive names *or logos* other than by the Microsoft® or Windows® names by themselves." CIS 22, 66 Fed. Reg. 59,465. The CIS further claims that the exception for products known by combinations of generic terms with Microsoft® or Windows® does not cover marks that "are presented as a part of a distinctive *logo* or another stylized presentation because the *mark* itself would not be either generic or descriptive." CIS 23, 66 Fed. Reg. 59,465 (emphasis added). To the contrary, the terms of the RPFJ definition of "Trademarked" focus entirely on "names," not "logos" or "marks" as a whole. RPFJ § VI(T). The distinction is striking: the word "name" appears five times in the definition, and "descriptive or generic terms" appears three times. Neither "logo" nor "mark" appears at all.

Microsoft clearly appreciates the distinction. Although Microsoft apparently has not yet formally abandoned the mark "Internet Explorer" (U.S. Trademark Reg. No. 2277122), it does not assert that mark when it lists its trademarks as a warning to the public. See http://www.microsoft.com/misc/info/cpyright.htm. Microsoft *does* list its trademark for the Microsoft Internet Explorer *logo*, however. *Id.*; see U.S. Trademark Reg. No. 2470273.

d. *Microsoft Can Easily Manipulate Which Middleware Releases Are "New Major Versions"*

Indeed, even a "Microsoft Middleware Product" satisfying that four-part test may not be "Microsoft Middleware" subject to the disclosure obligation unless it is a "new major version" of the product, that is, if the release is "identified by a whole number or by a number with just a single digit to the right of the decimal point." RPFJ § VI(J). That has two implications. First, Microsoft can simply adopt a different method of naming new releases. Second, even under current practice a version with two digits to the right of

the decimal point may fix significant errors, so that disclosure only of the prior version of the APIs might leave developers without the ability to invoke some needed functionality with the disclosed APIs.

### D. The Disclosure Provisions — Particularly Those Concerning "Communications Protocols" — Depend On An Undefined And Thus Unenforceable Concept of "Interoperability"

Both the API and Communications Protocol disclosure provisions define the scope of the data to be disclosed as that necessary to permit non-Microsoft products to "interoperate" with the Windows client OS and to "interoperate natively" with Microsoft server operating system products. See RPFJ §§ III(D), (E). The disclosure obligations are limited to "the sole purpose of interoperating with a Windows Operating System Product." *Id.*

The obligations depend on the meaning of "interoperate," but the RPFJ never defines that term, and there is no non-discrimination provision attached to this obligation. That is critical because interoperability is not something that can be achieved half way. Either two software products interoperate for all functions that they must perform together, or they do not. Any impediment in any aspect of the interoperation nullifies the interoperability. The *CIS* seems to equate "interoperate" with "fully take advantage of," see CIS 36, 66 Fed. Reg. 59,468, but there is no such language in the RPFJ itself.

The Communications Protocol disclosure provision (RPFJ § III(E)) outlines a seeming "obligation" that is entirely undefined. Section III(E) seems to require disclosure of Communications Protocols on Windows clients that are "used to interoperate natively * * * with a Microsoft server operating system product." But just as "interoperate" is not defined, neither does the RPFJ define "Microsoft server operating system product."

One of the most important aspects of the Windows 2000 Server product bundle is

Microsoft's web server, IIS. In the absence of a definition of "Microsoft server operating system product," however, it is unclear whether the disclosure obligation encompasses protocols used to interoperate with this and other aspects of the current server product. Cf. RPFJ § VI(U) (defining "Windows Operating System Product" as all software code "distributed commercially * * * as Windows 2000 Professional" and other named products, and "Personal Computer versions" of their successors).

Again, the CIS attempts to provide assurances that go beyond the terms of the proposed judgment. The CIS states (at 37, 66 Fed. Reg. 59469):

> The term "server operating system product" includes, but is not limited to, the entire Windows 2000 Server product families and any successors. All software code that is identified as being incorporated within a Microsoft server operating system and/or is distributed with the server operating system (whether or not its installation is optional or is subject to supplemental license agreements) is encompassed by the term. For example, a number of server software products and functionality, including Internet Information Services (a "web server") and Active Directory (a "directory server"), are included in the commercial distribution of most versions of Windows 2000 Server and fall within the ambit of "server operating system product."

That definition would be appropriate. But no corresponding language — no enforceable definition — appears in the RPFJ.

### E. The Narrow Scope Of The Disclosure Provisions Contrasts Sharply With The Broader Definitions In DOJ's Earlier Remedy Proposals

Before liability had been confirmed on appeal, DOJ took a far broader view of what should be disclosed. The interim remedies in the vacated judgment required disclosure of APIs, Communications Interfaces, and "technical information" needed to enable competing products "to interoperate effectively with Microsoft Platform Software." 97 F. Supp.2d at 67 (§ 3(b)). That disclosure requirement was backed up by a requirement, absent from the RPFJ, that Microsoft create a secure facility so that developers could work with Windows source code to ensure that their applications

worked properly on the Microsoft platform. See *id.*

The definition of "technical information," moreover, helped ensure that disclosure would be complete and not subject to many different methods of manipulative narrowing. The "technical information" definition encompassed the following items:

> all information regarding the identification and means of using APIs and Communications Interfaces that competent software developers require to make their products running on any computer interoperate effectively with Microsoft Platform Software running on a Personal Computer. Technical information includes but is not limited to reference implementations, communications protocols, file formats, data formats, syntaxes and grammars, data structure definitions and layouts, error codes, memory allocation and deallocation conventions, threading and synchronization conventions, functional specifications and descriptions, algorithms for data translation or reformatting (including compression/decompression algorithms and encryption/decryption algorithms), registry settings, and field contents.

97 F. Supp.2d at 73 (§ 7(dd)).

Indeed, DOJ's position was stronger even before liability had been imposed at all. Draft 18 from the Posner mediation imposed a disclosure obligation using this definition of "technical information":

> all information, regarding the identification and means of using APIs (or communications interfaces), that competent software developers require to make their products running on a personal computer, server, or other device interoperate satisfactorily with Windows platform software running on a personal computer. Technical information includes reference implementations, communications protocols, file formats, data formats, data structure definitions and layouts, error codes, memory allocation and deallocation conversions, threading and synchronization conventions, algorithms for data translation or reformatting (including compression/decompression algorithms and encryption/decryption algorithms), registry settings, and field contents.

The RPFJ, by contrast, contains no analogue to these precise and inclusive definitions. Instead, the RPFJ relies solely on the circular (and completely manipulable) definition of API (RPFJ § VI(A)), a similarly narrow definition of "Communications

Protocol" (*id.* § VI(B)), and a definition of "Documentation" that is wholly dependent on the API definition (*id.* § VI(E)).

### F. The "Security" Exceptions in Section III(J) Permit Microsoft To Avoid Its Disclosure Obligations

RPFJ § III(J) provides Microsoft with two additional lines of defense in the event that any competitively sensitive APIs nonetheless fall within the malleable definition of API. Section III(J)(1) severely undercuts the disclosure requirements to the extent they apply in the modern world where security protocols are critical to any communication between networked computers, particularly over the Internet. And Section III(J)(2) provides Microsoft with seemingly unfettered discretion to decide who is worthy to receive technical information necessary to make middleware function on the Internet.

Microsoft can plausibly rely on Section III(J) to decline to comply with disclosure requests based on concerns with authentication and security that it will be able to assert with respect to any program that involves communication between a PC and a server on the Internet (or even within many private networks). Authentication, security, and similar protection mechanisms are and will continue to be integral parts of the functioning of those products. See, *e.g.*, Comment, William A. Hodkowski, *The Future of Internet Security: How New Technologies Will Shape the Internet and Affect the Law*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 217 (1997). Indeed, security and rights-protection are particularly critical to Internet-based economic activity, which encompasses much of the computing on the Internet. As a consequence, the security mechanisms are critically important to any Internet-based middleware threat to the Windows OS monopoly.

For example, digital rights management ("DRM") has become a principal part of Windows Media Player. Allowing Microsoft to withhold data needed to permit rivals to

interoperate with the DRM specifications in Windows Media Player — specifications that Microsoft is making universal by including Windows Media Player on every PC — may well end effective competition for media players within the next upgrade cycle for Windows. Similarly, any distant remaining possibility of Internet browser (or even e-mail client) competition should be squelched by the RPFJ's approval for Microsoft to withhold parts of encryption-related protocols (again, as distinct from the customer-specific keys that make use of those protocols). For another example, Secure Socket Layer (SSL) is an open standard that has been critical to the open development of a relatively secure Internet. As Microsoft implements a proprietary version of SSL — one that others will have to follow given the ubiquity of the Microsoft browser as a result of the misconduct at issue in this case — it will be able to conceal critical layers of that altered protocol from rivals, essentially ending the possibility of competition for client software for Internet computing. And by giving Microsoft a basis to conceal authentication protocols (not merely data), the RPFJ frees Microsoft Passport from scrutiny and permits Microsoft to bind a proprietary universal password and identity utility to its monopoly operating system without hope of interoperation.

By permitting Microsoft to withhold key parts of encryption, digital rights management, authentication, and other security protocols, the RPFJ effectively allocates Web-based computing to the monopolist of the desktop. A decree could hardly try to place a clearer stamp of approval on an expansion of the scope of an illegally maintained monopoly.

### 1. *The Exclusions for Security-Related APIs and Protocols in RPFJ(J)(1) Permit Microsoft To Hobble Disclosures That Are Critical in Internet Computing*

It is no coincidence that Bill Gates has now emphasized the centrality of security

concerns in Microsoft's future software offerings. See, *e.g.*, John Markoff, *Stung by Security Flaws, Microsoft Makes Software Safety a Top Goal*, N.Y. TIMES, Jan. 17, 2002, at C1. That is no more than an acknowledgment of market and technical realities that have been widely known throughout the industry for years as Internet computing has taken hold. That market reality should have been sufficient to make clear that an indistinct exception of the type in RPFJ § III(J)(1) would allow Microsoft to disclose "crippled" versions of APIs and Communications Protocols. Microsoft's sudden dedication to security leaves no doubt that it will inject security aspects into its proprietary APIs and its proprietary, extended implementations of Communication Protocols. Under the terms of Section III(J)(1), Microsoft can easily argue that disclosure of those aspects — necessary for one machine to communicate with another — will compromise the security from *any* installation or group of installations. See also Stiglitz/Furman Dec. 30.

The CIS maintains that Section III(J)(1) simply protects Microsoft and its customers from disclosure of customer-specific "keys, authorization tokens, or enforcement criteria," and states that the exception "does not permit [Microsoft] to withhold any capabilities that are inherent in the Kerberos and Secure Audio Path features as they are implemented in a Windows Operating System Product." CIS 52, 66 Fed. Reg. 59,472. But that reading does not square with the text of the exemption. The quoted examples are specifically presented "without limitation." RPFJ § III(J)(1). The RPFJ language easily permits Microsoft to contend that any release of the *way its proprietary security protocols work* "would compromise the security of a particular installation."

Most important, Section III(J)(1) clearly permits Microsoft to withhold portions of APIs or Communications Protocols, but the examples given of keys and authorization codes are *not* parts of APIs or Communications Protocols. They may be part of *customer-specific* Documentation, rather than the Documentation used by customers, consultants, and developers to create or identify and implement particular keys, tokens, or enforcement criteria.) The APIs and Communications Protocols for security-related applications are not customer-specific, nor does their disclosure compromise security. To the contrary, the most powerful encryption and other security-related software is openly disclosed, as is the Kerberos standard, or even open source, as is the federal government's new encryption standard. See, *e.g.*, *Watch your AES: A new encryption standard is emerging*, Red Herring (Dec. 1, 1999) (open source government standard).

Unless RPFJ § III(J)(1) refers to a null set, however, Microsoft will have a basis to withhold *some* parts of Communications Protocols and APIs. The CIS states that Communications Protocols "must be made available for third parties to license at a*ll* layers of the communications stack," (CIS 36-37, 66 Fed. Reg. 59,468 (emphasis added)) but the RPFJ to which Microsoft agreed — and which alone is potentially enforceable — says no such thing. To the contrary, Section III(J)(1) explicitly relieves Microsoft from the obligation to license *some* "portions or layers of Communications Protocols" (and some "[p]ortions of APIs") — *not* just client-specific *data*. If part of a Communications Protocol is withheld, *not* "all layers of the communications stack" are "available * * * to license." And if part of a Communications Protocol is unavailable, interoperation is impossible; at certain points, the interaction between two computers will break down.

Limited withholding of APIs or Communications Protocols (rather than merely withholding customer-specific *data*) will render middleware non-functional, since software cannot interoperate with other software partially. Carving off some aspects of interoperability means that there is no interoperability, thwarting the premise of the disclosure provisions altogether.

The CIS also describes other limits that do not exist in the text of the RPFJ. The CIS claims that the RPFJ requires disclosure of the Communications Protocols used for the Microsoft-proprietary implementation of the Kerberos security standard — a "polluted" Kerberos that is the strict analogue to the "pollute[d]" Java that figured prominently at trial. See *Microsoft III*, 253 F.3d at 76-77 (quoting 22 J.A. 14,514). But Section III(J) explicitly relieves Microsoft of the obligation to disclose "portions" of APIs or Communications Protocols that would "compromise the security of a particular installation or group of installations of" security software. That is an open invitation to *withhold* some part of the Microsoft-proprietary variation of Kerberos.

The type of customer-specific information that the CIS claims is all that can be withheld could and should be described much more accurately and specifically in the RPFJ, not as [p]ortions of APIs or * * * portions or layers of Communications Protocols," but rather as "*customer-specific or installation-specific data* the disclosure of which would compromise the security of a particular installation or group of installations of anti-piracy, anti-virus, software licensing, digital rights management, encryption or authentication systems, including without limitation keys, authorization tokens or enforcement criteria." But that is not the approach the RPFJ takes. Rather, the RPFJ makes clear that Microsoft is entitled to withhold, not merely customer- or installation-

specific *data*, but some "portions" of APIs and some "portions or layers" of Communications Protocols. All communication of substance between desktops (or other client computers) and server computers over the Internet increasingly involves layers of security protocols, anti-virus routines, and the like. And one of Microsoft's principal current efforts is to foist its own version of digital rights management (DRM) upon providers of copyrighted content over the Internet.

When Microsoft asserts a right to withhold information, it will be difficult indeed for the Technical Committee, DOJ, or the Court to exclude the possibility that particular "portions or layers of Communications Protocols," or "[p]ortions" of the APIs that permit middleware programs to operate atop Microsoft operating systems, in fact "compromise the security of a particular installation or group of installations." RPFJ § III(J)(1). Any such determination is likely to be time-consuming, and related enforcement therefore would be slow. It should be a simple matter for Microsoft to delay disclosures of this type long enough to disadvantage competitors.

### 2. *RPFJ III(J)(2) Permits Microsoft To Refuse Effective Disclosure To A Range Of Potentially Effective Competitors*

While RPFJ § III(J)(1) allows Microsoft to refuse to disclose *portions* of APIs, RPFJ § III(J)(2) permits Microsoft to withhold *all* of any "API, Documentation, or Communications Protocol" having to do with "anti-piracy systems, anti-virus technologies, license enforcement mechanisms, authentication/authorization security, or third party intellectual property protection mechanisms of any Microsoft product." The RPFJ allows Microsoft to select to whom it will disclose this information by imposing several tests that may be based on standards apparently committed to Microsoft's sole discretion as much as is the definition of Windows Operating System Product.

Thus, RPFJ § III(J)(2)(b) permits Microsoft to evaluate whether a competitor has a "reasonable business need" for the desired information. What Microsoft is likely to consider a "reasonable" business need by a competitor may be narrow indeed. As the D.C. Circuit observed, Microsoft viewed its desire "to preserve its" monopoly "power in the operating system market" as a procompetitive justification for exclusionary conduct. *Microsoft III*, 253 F.3d at 71. No doubt Microsoft will view direct or indirect efforts to undermine its hammerlock on the OS market as unreasonable efforts to confuse consumers or impair the "Windows experience."

Even bona fide attempts by a monopolist to objectively evaluate a potential competitor's "reasonable business need" can scarcely be expected to produce consistent or foreseeable results. Rather, that amorphous standard is likely to produce a flood of disputes — each of which will delay the competitor's receipt of technical information while Microsoft gains more time to respond (by legal or illegal means) to the competitive threat. Moreover, the "reasonable business need" must be for a "planned or shipping product." If the product is already "shipping," it may be too late for disclosure to be helpful in the market. How fully "planned" a product must be raises further questions that Microsoft will be able to resolve to its own disadvantage.

In addition, Microsoft need not provide security-related APIs, protocols, or documentation to any vendor that does not "meet[] reasonable, objective *standards established by Microsoft* for certifying the authenticity and viability of its business." RPFJ § III(J)(2)(c) (emphasis added). That provides Microsoft with a basis for excluding almost all nascent competitors except for those associated with established, profitable companies. It would not be difficult to craft "reasonable, objective standards" for

"viability of [a] business" that would exclude any Internet-focused startup, including Netscape in 1995. Indeed, the history of the software industry both before and after the dot-com bubble shows that very few software companies have had "viable" businesses. Certainly Section III(J)(2)(c) would give Microsoft at least a debatable basis for withholding the APIs and Communications Protocols needed to interoperate with Microsoft software over the Internet from all open source ISVs — who are more interested in constantly improving the quality of software than in obtaining licensing profits. Although open source software is widely recognized as a major threat to Microsoft's monopoly power, the business models even of the leading Linux providers might fail any number of "reasonable, objective standards" for "viability." Indeed, Microsoft's CEO Steve Ballmer describes open source software as a "cancer" that threatens the viability of *any* software business. See Mark Boslet, *Open Source: Microsoft Takes Heat*, INDUSTRY STANDARD, July 30, 2001; Dave Newbart, *Microsoft CEO Takes Launch Break with the Sun-Times*, CHI. SUN-TIMES, June 1, 2001, at 57. For that matter, it is not entirely unreasonable to regard head-to-head competition with Microsoft in platform software as a less than viable business plan; certainly most venture capitalist and other investors hold that view. It would not be difficult for Microsoft to craft "objective" standards of business viability that would exclude Corel and Novell, to name two examples. Microsoft should be able to exclude many sources of potential cross-platform middleware threats through RPFJ § III(J)(2)(c) alone.

Yet RPFJ § III(J)(2) contains yet another method for screening competitors from access to technical information needed by Internet-centric middleware applications. Any ISV that clears the hurdles and receives the information nonetheless must submit its

*implementation* of the APIs, Documentation or Communications Protocols for review by a Microsoft-approved third party (likely a captive commercial ally) "to test for and ensure verification and compliance with Microsoft specifications for use of the API or interface, which specifications shall be related to proper operation and integrity of the systems and mechanisms identified in this paragraph." RPFJ § III(J)(2)(d). "[P]roper" no doubt will mean "the way Microsoft does it," making this provision into yet another way in which Microsoft can control the pace of innovation to ensure that the market has no or limited access to products that improve upon Microsoft's offerings. This mechanism means that vendors who tried to adapt APIs to function as bridges to other platforms would have to give Microsoft the ammunition to defeat that function — if not simply disapprove it and await the slow operation, if any, of the RPFJ enforcement mechanism.

The CIS suggests that there are strict limits on Microsoft's discretionary ability to deny access to security-related aspects of Communications Protocols and APIs, CIS 53, 66 Fed. Reg. 59,473, but those limits are absent from the decree language. The CIS contends that these exceptions "are limited to the narrowest scope of what is necessary and reasonable, and are focused on screening out individuals or firms that * * * have a history of engaging in unlawful conduct related to computer software * * *, do not have any legitimate basis for needing the information, or are using the information in a way that threatens the proper operation and integrity of the systems and mechanisms to which they relate." *Id.* Setting aside the opportunity for Microsoft to argue, as it has in other contexts, that the injection of competing software "threatens the proper operation and integrity" of its products, see *Microsoft III*, 253 F.3d at 63-64, the CIS simply does not address the broadest basis for withholding APIs and Communications Protocols under

Section III(J)(2): Microsoft's ability to decide, based on criteria within its own discretion, that an ISV is not "authentic[]" and "viab[le]." RPFJ § III(J)(2). That provision could provide a basis for excluding all but a handful of other software companies.

### G. RPFJ § III(I) Would Place A Judicial Imprimatur On Microsoft's Use Of Technical Information As A Lever To Extract Competitors' Intellectual Property

The RPFJ would actually increase Microsoft's bargaining power by explicitly placing a judicial imprimatur on demands by Microsoft that recipients of APIs cross-license any intellectual property developed using the APIs. Section III(I) of the RPFJ permits Microsoft to use intellectual property licensing terms to impede whatever competitive benefits otherwise might have arisen from its disclosure obligations. Microsoft's licenses "need be no broader than is necessary to ensure" the licensee's ability to "exercise the options or alternatives expressly provided" by the RPFJ. RPFJ § III(I)(2). A welter of litigation over the breadth that is "necessary" — and the collateral restrictions that are permissible — is certain to continue through the life of the decree.

Similarly, Microsoft should have no difficulty delaying the use of any option for which it is entitled to charge a royalty, simply by setting a "reasonable" royalty (RPFJ § III(I)(1)) beyond what any OEM could afford to pay in that competitive, low-margin business. If OEMs have to pay Microsoft to exercise any of their icon-shuffling options — a state of affairs clearly envisioned in RPFJ § III(I) — the slim likelihood that any OEM will take advantage of those provisions will be lessened still further. Microsoft need not permit transfers or sublicenses of API rights, imposing yet another barrier to entry. *Id.* § III(I)(3). And Microsoft could ensure, through licenses, that end-users could not make competitively significant alterations to the Microsoft-approved package.

Most important, however, the RPFJ specifically permits Microsoft to use its

monopoly as a means to force access to *others'* intellectual property. Microsoft can assert a right to license "any intellectual property rights" a competitor "may have *relating to* the exercise of their options or alternatives provided by" the RPFJ. RPFJ § III(J)(5). Thus, to take advantage of a competitive option, an ISV will need to license its product to Microsoft, and hope that Microsoft does not use that license as a means to produce a copycat program and bundle it into Windows. Many companies long since departed the software industry after entering into what they thought were limited exchanges of intellectual property with Microsoft.[16]

Although the CIS states that Microsoft could demand only any IP rights it would need to comply with its own disclosure obligations under the RPFJ, CIS 50-51, 66 Fed. Reg. 59,472, the broad "relating to" language does not compel that narrow reading, and may not support it at all. The vague limitations in Section III(I)(5) are unlikely to reassure ISVs that Microsoft will not use its license to analyze the ISV's IP rights well enough to design around it and bundle a copycat program into Windows or Office, as has happened many times before. This weapon should give Microsoft additional ability to prevent industry participants from taking advantage of the superficially appealing provisions of the RPFJ.

## VI. BUILT-IN DELAYS EXACERBATE THE DECREE'S UNJUSTIFIABLY BRIEF DURATION

It is remarkable that the RPFJ would reward Microsoft for litigating and losing broadly on liability with a consent decree that is shorter than other such decrees, and may

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[16] See, *e.g.*, Testimony of Mitchell Kertzman before the Sen. Jud. Comm., July 23, 1998 (detailing Sybase's difficulties in this regard); Statement of Michael Jeffress before the Sen. Jud. Comm., July 23, 1998 (after TVHost revealed its intellectual property to Microsoft in failed negotiations to sell the company, Microsoft imitated the product).

be the shortest ever. DOJ antitrust consent decrees now routinely last ten years.[17] Section V of the RPFJ provides for a term of only *five years*, however, less time even than Microsoft has engaged in the illegal conduct that was the subject of this litigation. The decree plainly should be longer than the period between the initiation of the misconduct and the imposition of relief, and at least as long as the typical relief.[18] Microsoft has enjoyed the benefits of its misconduct for at least seven years. The RPFJ not only would allow Microsoft to retain those benefits, but would subject Microsoft to its light and uncertain obligations for no more than five years, and scarcely four and one-half years for the many obligations that are delayed.

The RPFJ further abbreviates its already brief duration, and undermines its already insubstantial requirements, by building in long delays before Microsoft must comply with its limited duties. Thus, Microsoft need not comply with the icon-related requirements until November 2002, see RPFJ § III(H)(1), although Microsoft needed only two weeks after the D.C. Circuit decision to offer OEMs roughly the same flexibility with icon display as the RPFJ requires, and needed no more than three additional months to implement that flexibility on Windows XP. See *Microsoft Announces Greater OEM Flexibility for Windows* (Microsoft press release July 11, 2001). Similarly, Microsoft need not comply with its API disclosure requirements or the OEM flexibility provisions until November 2002, RPFJ §§ III(D), (H), and need not comply with the Communica-

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[17] As of 1998 it was the policy of the Antitrust Division that consent decrees last for at least 10 years. See ANTITRUST DIVISION MANUAL, at IV:54 (3d ed. Feb. 1998); see also V VON KALINOWSKI *ET AL.*, ANTITRUST LAWS AND TRADE REGULATION §§ 96.01[2], at 96-4; 96.02[1] at 96-10 (2d ed. 2000).

[18] If Microsoft actually and convincingly lost its monopoly before the expiration of a decree of appropriate length, it could, of course, move for modification or termination of the decree under *Rufo* v. *Inmates of Suffolk County Jail*, 502 U.S. 367 (1992).

tions Protocol disclosure requirements until August 2002. *Id.* § III(E). See also Stiglitz/Furman Dec. 30. These built-in delays cut far into the unusually brief term of the decree.

The "Timely Manner" governing Microsoft's disclosure obligations in RPFJ §§ III(D)-(E) — after the initial delay — permits Microsoft to withhold that disclosure until a product version has been distributed to 150,000 beta testers. See RPFJ § VI(R). "Beta testers" in undefined. Until recently, Microsoft, like other vendors, distinguished between "beta testers" who agreed to provide substantial feedback to the software manufacturer, and "beta copies" of a program that might be distributed without such obligations or expectations. Few, if any, beta testing programs involved 150,000 beta *testers* under that usage. A return to the former terminology could postpone the "Timely Manner" until commercial release. And in any event, it should be a simple matter for Microsoft to delay distribution of any beta version to 150,000 testers, however defined.

Here again, the contrast with the interim remedies of the original decree is striking. The "Timely Manner" definition in that judgment required Microsoft to disclose "APIs, Technical Information and Communications Interfaces * * * at the *earliest* of the time that" those items were

> (1) disclosed to Microsoft's applications developers, (2) used by Microsoft's own Platform Software developers in software released by Microsoft in alpha, beta, release candidate, final or other form, (3) disclosed to any third party, or (4) within 90 days of a final release of a Windows Operating System Product, no less than 5 days after a material change is made between the most recent beta or release candidate version and the final release.

97 F. Supp.2d at 73-74 (§ 7(ff)) (emphasis added). While the vacated judgment made a strong effort to place outside developers on the same footing as Microsoft's applications developers throughout the development process, the RPFJ permits Microsoft to delay

disclosure until the last minute, without any analogue to the requirement that Microsoft promptly update changes made in the final pre-release stage.

Another significant built-in delay results from the definition of "Non-Microsoft Middleware Product" to include only products that have one million users. RPFJ § VI(N)(ii). That definition governs the extent of the anti-retaliation provisions in RPFJ §§ III(A)(1), III(C), and III(H). Moreover, the icon flexibility and information disclosure provisions apply only to Microsoft Middleware and Microsoft Middleware Products, each of which must have functionality similar to a Non-Microsoft Middleware Product. See RPFJ §§ VI(J)(3), VI(K)(2)(b)(ii). By restricting *all* of these protections to middleware products that have distributed more than one million copies, the RPFJ encourages Microsoft to crush new middleware threats at the earliest stages. That is, the RPFJ puts a premium — indeed, a judicial imprimatur — on the monopolistic exclusion of nascent threats before the innovations in those products reach a sizable mass of consumers. That flies in the face of the concerns behind the judgments of liability in this case. See *Microsoft III*, 253 F.3d at 54, 79.

## VII. ADDITIONAL WEAKNESSES UNDERCUT THE RPFJ

### A. The Anti-Retaliation Provisions Are Deeply Flawed

Although anti-retaliation provisions are clearly necessary, the provisions in the RPFJ proceed from a misguided premise that retaliation by the monopolist — abuse of monopoly power — is permitted unless squarely forbidden. The well-meaning restrictions in the RPFJ leave Microsoft with ample recourse to use its monopoly power to retaliate against those who aid competitive threats. See Stiglitz/Furman Dec. 31-32.

Most important, the anti-retaliation provisions permit Microsoft to withdraw the Windows license of any OEM (or other licensee) that does not serve Microsoft's

anticompetitive bidding. The CIS (at 27, 66 Fed. Reg. 59,466) suggests that the provision of RPFJ § III(A) requiring notice and opportunity to cure a violation provides some kind of protection to OEMs. But the protection is evanescent, disappearing entirely after two notices within a license term. See RPFJ § III(A). See also Stiglitz/Furman Dec. 31-32.

Such notices will become routine, quickly and completely nullifying this provision. In the rough-and-tumble of everyday business, parties frequently diverge in minor respects from the terms of their agreements. The CIS admits that "Windows license royalties and terms are inherently complex." CIS 28, 66 Fed. Reg. 59,466. Given that complexity, it would be surprising if most OEMs did *not* transgress some term of their Windows licensing agreements every year or so, if not more often. Such transgressions would provide ample basis for Microsoft to retaliate without fear of interference from the RPFJ.

There is no limit on what Microsoft can invoke as a reason for termination, that is, there is no requirement that terminations be for cause, much less for a material breach of the license agreement. Indeed, the sudden termination that Microsoft may impose after two notices — even notices of purported violations that were promptly and completely cured — need not even be based on something the OEM *could* cure.

The anti-retaliation provisions for software and hardware vendors contain another weakness. Section III(F)(1)(a) forbids retaliation against hardware and software vendors who support software that competes with Microsoft Platform Software or that runs on other platforms. But that provision therefore *permits* Microsoft to use its Windows monopoly to crush middleware vendors if Microsoft does not yet have competing middleware (see RPFJ §§ VI(K)-(L)) and whose middleware applications are used on the

*Windows* platform — where any middleware would have to start in order to be a practical bridge to another platform.

Moreover, when prohibiting a specific type of retaliation would also help undermine the applications barrier to entry, the RPFJ hews to a general approach rather than focusing on precise adjudicated conduct. For example, Microsoft threatened to discontinue its port of Microsoft Office for the Macintosh unless Apple ceased supporting Netscape Navigator. See *Microsoft III*, 253 F.3d at 73-74. Yet the RPFJ does not require Microsoft to continue to offer Mac Office (much less to keep the port current) — an expedient that would take away Microsoft's *weapon* rather than merely admonishing it to behave well, and would tend to undermine the applications barrier to entry as well.

### B. Microsoft Can Evade The Price Discrimination Restrictions

The uniform pricing provisions in RPFJ § III(B) have too narrow a reach to provide significant limits on Microsoft's ability to engage in price discrimination in order to force OEMs to eschew non-Microsoft products that may threaten Microsoft's OS monopoly. Microsoft's well-known market position in other products permits easy evasion of these limits. For example, nothing prevents Microsoft from discriminating in the pricing of its monopoly suite of desktop productivity applications, Microsoft Office, to which every OEM of any size needs access. Moreover, the leading PC OEMs all build server computers using Intel-based hardware, and increasingly rely on revenue from servers to make up for the exceptionally low margins on desktop PCs. To continue in the Intel-based server business, PC OEMs must license Microsoft's server operating systems, which are dominant on the Intel-based platform. The RPFJ places no limits on Microsoft's pricing of server operating systems, providing another outlet for the nullification of RPFJ § III(B).

Even on their own terms, however, the RPFJ pricing provisions contain a substantial loophole. Microsoft can reward an OEM for an "absolute level * * * of promotion" of Microsoft products. RPFJ § III(A). That provides a means for Microsoft to distinguish between OEMs who make sure that Microsoft software dominates their offerings, and OEMs who either promote competing software or simply do not interfere with consumers' choices.

### C. Microsoft Can Enforce De Facto Exclusivity

Despite a superficial prohibition, Sections III(F)(2) and III(G) permit Microsoft to impose practical, effective exclusivity obligations on ISVs and others who need access to Windows to develop their products. Microsoft need do no more than recast its agreements with ISVs as contracts to "use, distribute, or promote * * * Microsoft software" or "to develop software for, or in conjunction with, Microsoft," RPFJ § III(F)(2), or as a "joint venture," joint development * * * arrangement" or "joint services arrangement." *Id.* § III(G). New "joint development agreements" or "joint services arrangements" likely will supersede the current licenses for use by ISVs of Microsoft software developments tools and perhaps also the current arrangements for preferential access under MSDN. At best, a decree court would have to undertake a full antitrust analysis of whether the joint venture was "bona fide." *Id.* § III(G). To nullify RPFJ § III(F)(2), Microsoft could simply change its development tools agreements to require use of Microsoft software — which literally would be "a bona fide contractual obligation * * * to use * * * Microsoft software." Since any ISV that wants its software to run on Windows almost certainly would need to use Microsoft's development tools, the anti-exclusivity provision, like so many others in the RPFJ, would have no practical effect.

DOJ has defended this provision as necessary to permit legitimate "procom-

petitive collaborations." CIS 44, 66 Fed. Reg. 59,470. But the broad terms of the RPFJ itself provide little basis for hope that the objects of joint ventures permitting exclusivity will not include a variety of "new" products that amount to little more than routine alterations to Windows and other Microsoft products in conjunction with requests from other industry participants. It is not uncommon for an ISV to ask for a new API, or for an IHV to ask for some other specification in Windows. These exercises soon may become objects of "joint ventures" or "joint development agreements" under RPFJ § III(G).

RPFJ § III(G)(1) undercuts its superficial prohibition on contracts that would require participants at different levels of the market to install or promote Microsoft Platform Software to a "fixed percentage" of those participants' own customers. Section III(G)(1) permits Microsoft to impose such contracts so long as it "in good faith obtains a representation that it is commercially practicable for the entity to provide equal or greater distribution, promotion, use or support for software that competes with Microsoft Platform Software." Such representations should be easy to come by, so long as Microsoft pays enough. There is nothing to require a single party making such a representation actually to carry out the parallel distribution that it told Microsoft was "commercially practicable." And it should be easy enough for Microsoft, through a wink and a nod, to ensure that any such representations were not accompanied by efforts to prove that commercial practicability to Microsoft's detriment.

## VIII. THE RPFJ'S ENFORCEMENT MECHANISMS ARE FUNDAMENTALLY INADEQUATE.

As we have shown above, the RPFJ fails adequately to prevent Microsoft from engaging in illegal and anticompetitive practices, and allows it to continue the patterns of behavior that led to this litigation in the first place. The RPFJ suffers from an important

secondary flaw, however: the enforcement mechanisms contained in Section IV are fundamentally inadequate. The RPFJ commits much of the practical enforcement responsibility to a "Technical Committee," RPFJ § IV(B), that would monitor "enforcement of and compliance with" the RPFJ. *Id.* § IV(B)(1). The Technical Committee is likely to impede enforcement rather than aid it.

First, Microsoft — the antitrust violator — could exert inappropriate control over the membership of the Technical Committee. Rather than creating a special master or an *independent* review committee to monitor compliance with the consent decree, the RPFJ allows Microsoft to have an equal voice with the plaintiffs in choosing the members of the Technical Committee; indeed, Microsoft may choose one of the three members outright. *Id.* § IV(B)(3). Although appointing a special master with real (though reviewable) power might make sense as a matter of judicial administration, allowing Microsoft to choose its own monitor makes no sense at all.

The composition of the Technical Committee suffers from a second defect. The RPFJ provides that "[t]he Technical Committee members shall be experts in *software design and programming*." RPFJ § IV(B)(2) (emphasis added). The interpretation of the RPFJ is largely a legal matter, however, dependent on adequate knowledge of the antitrust Section after section of the RPFJ is extraordinarily vague.[19] Experts in software design simply will not have any basis adequately to review complaints that Microsoft's

[19] For example, as we discussed above the RPFJ relies heavily on a "reasonableness" standard of conduct that simply reproduces a full analysis under the antitrust laws. Antitrust remedies, like other injunctive decrees, are supposed to be amenable to swift and sure enforcement, according to standards that give warning of what is forbidden and what is permitted both to the wrongdoer and to its potential victims. But again and again, the RPFJ would require both the Technical Committee and eventually the decree court to determine whether Microsoft's conduct was "reasonable."

behavior fails to comply with the RPFJ. However, that is the entire purpose of the Technical Committee.

Not only is the selection and composition of the Technical Committee problematic; the RPFJ's restrictions on how the Technical Committee can go about its business are equally inadequate. For example, it is likely that all third-party allegations of misconduct by Microsoft will be reviewed by the Technical Committee.[20] But the Technical Committee lacks any real power, and operates almost entirely in secrecy. Even if the Technical Committee finds Microsoft to be violating the RPFJ, its sole recourse is to "advise Microsoft and the Plaintiffs of its conclusion and its proposal for cure." *Id.* § IV(D)(4)(c). If DOJ or the settling State plaintiffs proceed with a complaint, none of the "work product, findings or recommendations by the Technical Committee may be admitted in any enforcement proceeding before the Court for any purpose, and no member of the Technical Committee shall testify by deposition, in court or before any other tribunal regarding any matter related to [the RPFJ]." *Id.* § IV(D)(4)(d). Enforcement would have to start over from scratch.

In effect, the Technical Committee's investigation is simply a waste of time. Even were the plaintiffs to decide, based on a Technical Committee report, that Microsoft had violated the RPFJ, the plaintiffs would need independently to investigate that violation under Section IV(A)(2). Indeed, the Technical Committee's reports to the

[20] While third parties have the right to raise complaints with the Internal Compliance Officer, see RPFJ § IV(C)(3)(g), the RPFJ gives them no incentive to do so; such complaints would merely allow a proven antitrust violator itself to determine whether it has violated the RPFJ or again violated the antitrust laws. Although the RPFJ also allows third parties to submit complaints directly to the plaintiffs, see *id.* § IV(D)(1), the plaintiffs can thereafter at their sole discretion refer any such complaints to the Technical Committee, *id.* § IV(D)(4)(a), or to the Internal Compliance Officer, *id.* § IV(D)(3)(a).

plaintiffs will be secret. See RPFJ § IV(B)(8)(e), (9). Ultimately, the Technical Committee simply injects delay into the process. But delay is indisputably in Microsoft's interest; Microsoft's monopolies bring it $1 billion each month in free cash flow, see Rebecca Buckman, *Microsoft Has the Cash, and Holders Suggest a Dividend*, WALL ST. J., Jan 18, 2002, at A3. Microsoft not only can afford to contest enforcement vigorously, but would not have to postpone enforcement for long before the RPFJ expires.

Finally, the "crown jewel" provision in the RPFJ is grossly inadequate. If at any point the court were to find that Microsoft had "engaged in a pattern of *willful and systematic violations*," RPFJ § V(B) (emphasis added), the RPFJ provides only one remedy for plaintiffs or the court: to extend the inadequate, and already overly-short, consent decree by "up to two years." But that is no deterrent. Willful and systematic violations should result in divestiture that terminates the illegally maintained monopoly once and for all. See *Microsoft III*, 253 F.3d at 103; *United Shoe*, 391 U.S. at 250. Slightly prolonging a failed decree makes no sense at all.

## CONCLUSION

The Revised Proposed Final Judgment should be rejected as contrary to the public interest.

Respectfully submitted.

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Dated: January 28, 2002

BEFORE THE UNITED STATES DEPARTMENT OF JUSTICE

| | |
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| UNITED STATES OF AMERICA,<br>Plaintiff,<br>v.<br>MICROSOFT CORPORATION,<br>Defendant. | Civil Action No. 98-1232 (CKK) |
| STATE OF NEW YORK *ex rel.*<br>Attorney General Eliot Spitzer, *et al.*,<br>Plaintiffs,<br>v.<br>MICROSOFT CORPORATION,<br>Defendant. | Civil Action No. 98-1233 (CKK) |

**DECLARATION OF JOSEPH E. STIGLITZ AND JASON FURMAN**

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## I. QUALIFICATIONS

Our names are Joseph Stiglitz and Jason Furman. Dr. Stiglitz is a Professor at Columbia Business School, Columbia's Graduate School of Arts and Sciences (in the Department of Economics), and Columbia's School of International and Public Affairs. In 2001, Dr. Stiglitz was awarded the Nobel Prize in Economic Sciences. In addition, Dr. Stiglitz serves as a Senior Director and Chairman of the Advisory Committee at Sebago Associates, Inc., an economic and public policy consulting firm.

Dr. Stiglitz previously served as the World Bank's Chief Economist and Senior Vice President for Development Economics. Before joining the Bank, he was the Chairman of the President's Council of Economic Advisers. Dr. Stiglitz has also served as a professor of economics at Stanford, Princeton, Yale, and All Souls College, Oxford.

As an academic, Dr. Stiglitz helped create a new branch of economics – "The Economics of Information" - which has received widespread application throughout economics. In the late 1970s and early 1980s, Dr. Stiglitz helped revive interest in the economics of technical change and other factors that contribute to long-run increases in productivity and living standards. Dr. Stiglitz is also a leading scholar of competition policy.

In 1979, the American Economic Association awarded Dr. Stiglitz its biennial John Bates Clark Award, given to the economist under 40 who has made the most significant contributions to economics. His work has also been recognized through his election as a fellow to the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Society, as well as his election as a corresponding fellow of the British Academy. He has also been awarded several honorary doctorates.

Jason Furman is a Lecturer in economics at Yale University. In addition, Mr. Furman is a Director at Sebago Associates. Mr. Furman previously served as Special Assistant to the President for Economic Policy at the White House, where his responsibilities included tax policy, the Federal budget, Social Security, anti-poverty programs, and other economic policy issues.

## II. PURPOSE

This Declaration was commissioned by the Computer & Communications Industry Association (CCIA) as an independent analysis of the competitive effects of the Proposed Final Judgment. The views and opinions expressed in this Declaration are solely those of the authors based on their own detailed study of the relevant economic theory and court documents; they do not necessarily reflect the views and opinions of CCIA. In addition, the views and opinion expressed in this Declaration should not be attributed to any of the organizations with which the authors are or have previously been associated.

## III. INTRODUCTION

Competition is the defining characteristic of a market economy. It provides the incentive to produce new products that consumers want, to improve efficiency and lower the costs of production, and to pass on these innovations in the form of lower prices for consumers. In a competitive market, a firm that does not act in the best interests of consumers will be punished and, ultimately, will fail. But when competition is imperfect – or when it is nonexistent as in the

limiting case of monopoly – the incentives to undertake these beneficial actions may be attenuated. In fact, a firm may even face incentives to behave in ways which do not serve the interests of consumers or the economy more generally. Monopoly power may lead a firm to underinvest in innovation, misdirect its investments, or undertake other activities in order to stifle competition rather than to improve products. Costs of production may be excessive because the monopolist has insufficient incentives for efficiency, has incentives to undertake costly measures to deter competition, or undertakes measures to raise rivals' costs. And consumers will face higher prices and fewer choices in the short run; in the long run, the losses to consumers may be even more severe.

In a unanimous decision, the full Court of Appeals for the D.C. Circuit upheld the District Court finding that Microsoft was guilty of violating § 2 of the Sherman Act through its illegal maintenance of a monopoly in the market for Intel-compatible personal computer (PC) operating systems.[1] The Court of Appeals also affirmed numerous findings of fact concerning the consequences of this illegal monopolization for misdirecting innovation, raising rivals' costs, and limiting consumer choice.

The desire to maintain this monopoly, even against potentially superior products, creates a powerful incentive for Microsoft to eliminate or weaken competition that could erode or even eliminate its monopoly. In the mid-1990s, the principal threat to Microsoft's Windows operating system came from the development of the Netscape browser and Java technologies,[2] which allowed programmers to write applications to Netscape and Java, meaning that such programs

[1] *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

[2] "The Java technologies include: (1) a programming language; (2) a set of programs written in that language, called the 'Java class libraries,' which expose APIs; (3) a compiler, which translates code written by a developer into 'bytecode'; and (4) a Java Virtual Machine ('JVM'), which translates bytecode into instructions to the operating system." See 253 F.3d at 74, citing Findings of Fact ¶ 73, *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 29 (D.D.C. 1999).

would then work on any operating system that would run Netscape or Java. By reducing or even eliminating the cost of producing applications for different operating systems, these technological rivals reduced the barriers to entry for a new operating system and threatened, over the longer run, to erode Microsoft's monopoly in Intel-compatible PC operating systems by allowing competitors to provide superior products at a lower cost.

Microsoft's conduct has effectively eliminated the threat posed by Netscape and Java. Given ongoing rapid technological progress, it is impossible to predict with certainty where the next challenge to Microsoft Windows will come from. The experience in this area, however, suggests that it is likely to come from rivalry at the borders of operating systems, in particular from "middleware" that makes it possible for programmers to write to the "middleware" rather than to the underlying operating system. One such example comes from the increasingly important area of multimedia: streaming media players. Whether the next challenge to Microsoft's operating systems monopoly comes from a multimedia package or another technology, Microsoft will continue to have the same incentives and ability to stifle competition as it displayed against Netscape and Java in the mid-1990s.

The principal goal of any remedy for Microsoft's illegal behavior in this case should be to foster competition and expand choices for consumers. The key to achieving this goal is changing Microsoft's incentives and taking steps to increase competition. A structural remedy, such as splitting up the company, would most directly alter incentives. Where such structural changes are not possible, the remedy should prohibit and regulate the conduct that Microsoft has used in the past *and will have an incentive to use in the future* to eliminate threats from "middleware" products that threaten to limit its monopoly power by usurping some, and perhaps eventually all, of the important functions of the Windows operating system.

The Revised Proposed Final Judgment (PFJ) of November 6, 2001 does not change Microsoft's incentives to undertake anticompetitive acts to stifle consumer choice by thwarting potentially superior products.[3] Furthermore, the PFJ provides few effective prohibitions against future anticompetitive conduct: It alternatively ratifies Microsoft's existing conduct, contains sufficient loopholes to allow Microsoft to circumvent the legislation, and suffers from toothless enforcement procedures that would allow Microsoft to reap the fruits of its monopoly for a significant, and potentially even indefinite, period. In our view, the PFJ would leave intact Microsoft's ability to maintain, and benefit from, its Windows operating system monopoly, while allowing it to continue to limit choices for consumers and stifle innovation.

The PFJ does not even accomplish the limited remedial goals articulated in the U.S. Department of Justice's Competitive Impact Statement (CIS).[4] Specifically, in addition to its loopholes and its inadequate enforcement mechanism, the PFJ is entirely silent on several key findings of the Court of Appeals, including the commingling of applications and operating systems code, the pollution of Java, and the applications barrier to entry more broadly.

The PFJ should be rejected and replaced with a remedy that changes Microsoft's incentives to unfetter the market for competition. At a minimum, a remedy in this case needs to restrain Microsoft's conduct, by restricting the means through which Microsoft can illegally maintain and benefit from its monopoly.

The goal of this Declaration is to analyze the PFJ. It does not propose a detailed alternative remedy. It is important to note, however, that the proposal by the litigating States, while imperfect, is clearly superior to the PFJ in all of these regards. We do not address more

[3] *United States v. Microsoft Corp.*, Revised Proposed Final Judgment, in the U.S. District Court for D.C, November 6, 2001.
[4] U.S. Department of Justice (November 15, 2001), *Competitive Impact Statement* in *United States vs. Microsoft Corp.*

aggressive remedies – such as structural changes to break up Microsoft or impose more extensive limitations on its intellectual property rights – but we note that such broader measures may well be necessary and desirable in order to alter Microsoft's incentives for anti-competitive behavior.[5] We are convinced, however, that the PFJ fails to meet the minimum requirement of an acceptable remedy – that is, it is unlikely to substantially increase competition in the relevant market.

The remainder of this Declaration contains five sections. First, it presents a brief discussion of the modern theory of competition, focusing on its relation to innovation. Second, it summarizes the relevant facts and legal conclusions relating to Microsoft. Third, it outlines what an effective remedy in this case should entail. Fourth, it examines the PFJ and highlights its deficiencies in comparison to this effective remedy. Finally, the paper concludes with a brief discussion of practical measures that could provide a more effective remedy.

## IV. THE MODERN ECONOMIC THEORY OF COMPETITION AND MONOPOLY

This section presents a brief overview of the modern economic theory of competition and monopoly. The theory of competition has evolved rapidly in the last few decades, due in part to the natural evolution of economic thought and in part to the issues raised by the "new economy" (such as the importance of network effects and rapid innovation). Given the vast literature on the topic, this discussion is necessarily selective and focuses on the most relevant issues for Microsoft's monopoly of the market for operating systems for Intel-compatible PCs. This theoretical background motivates the conclusions about the PFJ.

[5] Restrictions on intellectual property rights have been used as a remedy in past antitrust cases, for example IBM's 1956 tabulating machines case, in a manner that is both effective and largely without adverse effects.

**A. Acquisition of a monopoly**

The traditional view of monopoly is that in specific industries, like public utilities, increasing returns to scale create a situation in which luck or initial success will eventually lead to one firm that can maintain its monopoly by controlling an entire market and thus benefiting from the lower average costs of production that result from the larger scale of production. This aspect of the traditional view is still salient in the software market. Producing a software program has high fixed costs in the form of investments in research and development but, once this investment has been made, virtually no marginal cost from producing additional units. As a result, the larger the scale of production, the lower the average cost. By itself, these increasing returns to scale will provide a powerful force for consolidation.

The modern view of monopoly has added an additional effect that can strengthen the advantages enjoyed by the lucky or initially successful firm: network effects.[6] Network effects arise when the desirability of a product depends not just on the characteristics of the product itself but also on how many other people are using it.

Network externalities may be direct: as a user of Microsoft Word, I benefit when many other people also use the program because it is easier to share Word files. Network externalities may also be indirect: I am more likely to purchase a computer and operating system if I know that more software choices are currently available (and will be available in the future) for this system. An operating system with a larger set of existing (and expected) compatible applications will be more desirable. This indirect network effect has been called the "applications barrier to

[6] For an overall survey, see Michael Katz and Carl Shapiro (1994), "Systems Competition and Network Effects." *Journal of Economic Perspectives*, 8:2, 93-115. For a specific application to Microsoft, see Timothy Bresnahan (2001), "The Economics of the Microsoft Case." Mimeo available at http://www.stanford.edu/~tbres/Microsoft/The_Economics_of_The_Microsoft_Case.pdf.

entry."[7] The main reason that consumers demand a particular operating system is its ability to run the applications that they want. In developing applications, Independent Software Vendors (ISVs) incur substantial sunk costs and thus face increasing returns to scale. This motivates ISVs to first write to the operating system with the largest installed base. Because "porting" an application to a different operating system will result in substantial additional fixed costs, a firm will have less incentive to produce the application for operating systems with a smaller installed base, and may do so with a delay or forgo porting completely.

The applications barrier to entry can skew competition for an extended period of time and ensure that any monopoly power, once established, will tend to persist. In choosing a PC and an operating system, consumers make a large fixed investment. In addition, because a considerable amount of learning is associated with the use of operating systems and associated applications, and because files created under one applications software program may not be easily or perfectly transferable to others, there are large costs associated with switching. As a result, consumers will evaluate, among other factors, the current existence of compatible applications and the likely number of future compatible applications.[8] The current number of compatible applications is likely to depend directly on the past and current market share of the operating system. A consumer's reasonable evaluation of the prospects for the continued support of his or her favorite applications and the development of new applications is also likely to be based on current market share. As a result, increased market share indirectly increases the desirability of an operating system.

Empirically, this applications barrier to entry is dramatic. At its peak in the mid-1990s, IBM's operating system, OS/2 Warp, had 10 percent of the market for operating systems for

[7] Franklin Fisher, "Direct Testimony of Franklin Fisher" in *United States v. Microsoft Corp.*
[8] Nicholas Economides (1996), "The Economics of Networks." *International Journal of Industrial Organization*, 14:2.

Intel-compatible PCs and ran approximately 2,500 applications. In contrast, Windows supported over 70,000 applications.[9] Establishing a new operating system that effectively competes head-to-head with Windows would require the hugely expensive task of attracting ISVs to port thousands or even tens of thousands of programs to the new operating system, a process with a substantial fixed cost and, in the absence of a large guaranteed market, little scope to benefit from economies of scale. Particularly important to the applications barrier to entry is the availability of applications providing key functionalities, such as office productivity. Microsoft's dominance in this area, and its choice about whether or not to port its Microsoft Office program to alternative operating systems, can add a new and even higher level to the applications barrier to entry.

With this barrier to entry, a monopoly once established may be hard to dislodge. Anticompetitive practices early in the competitive struggle can lead to a market dominance that can persist, even if the anticompetitive practices which gave rise to the monopoly position are subsequently prohibited. These hysteresis effects are reinforced by switching costs. Learning a language or a program interface may involve significant costs. Users must therefore be convinced that an alternative program is *substantially* superior if they are to be induced to incur the learning and other costs associated with switching to an alternative product. These "lock in" effects make it more difficult to dislodge a firm that has established a dominant position, even when it is technically inferior to rivals.

This perspective has two important policy implications. First, it is imperative to address anticompetitive practices as quickly as possible. Delay is not only costly, but it impedes the restoration of competition even in the longer run. Second, prohibiting the practices that gave rise

[9] Findings of Fact, ¶ 40 and ¶ 46, 84 F. Supp. 2d at 20, 22.

to the monopoly may not suffice to restore competition. Stronger conduct, and possibly structural, remedies may be required.

**B. Potential for competition**

In the most simplistic view, a monopoly once attained is permanent. Increasing returns to scale and network externalities make the monopolist impregnable – any new entrant can be priced out of business by the monopolist – which can then go back to charging the monopoly price for the product.

In contrast to this simplistic static view, the economist Joseph Schumpeter presented a dynamic vision of technological change giving rise to a series of temporary monopolies. In his vision, the most successful firm in a winner-take-all contest would become a temporary monopolist, benefiting from the rents that this monopoly confers – a process necessary to justify incurring the sunk costs in research and development required to obtain the monopoly in the first place. But, in the Schumpeterian vision, this monopoly would eventually be toppled by entry as a newly innovative entrant displaced the monopolist with a superior product, thus reaping the benefits of increasing returns to scale and network externalities.[10]

The real world likely lies somewhere between these two views. A monopoly is not a fixed part of the economic landscape. But the downfall of a monopoly is not inevitable. In fact, more recent economic research strongly indicates that Schumpeter's conclusion was wrong; when restraints on anticompetitive conduct are absent, a monopoly can take steps to ensure that it is likely to be perpetuated.[11] These steps can suppress the overall level of innovation and have

[10] Joseph Schumpeter (1942 / 1984), *Capitalism, Socialism and Democracy*. Harper Collins, New York.
[11] See, among other references, Richard Gilbert and David Newbery (1980), "Preemptive Patenting and the Persistence of Monopoly." *American Economic Review* 72(3), pp. 514-526 and Partha Dasgupta and Joseph Stiglitz (1980), "Uncertainty, Market Structure and the Speed of R&D," *Bell Journal of Economics*, 11(1), pp.1-28.

other high social costs.[12] Significant network effects combined with switching costs, as discussed above, represent one way in which a firm can perpetuate its market power.

Understanding this point is central to understanding what motivated the actions of Microsoft in promoting Internet Explorer and restraining Netscape and Java, and also to understanding the motivations of a conduct remedy to improve competition. Network externalities are not a "fixed factor" in the economic landscape. They depend, at least in part, on decisions by the monopolist. A monopolist has substantial resources at its disposal to strengthen barriers to entry and thus to maintain and strengthen its monopoly power. Exclusionary conduct by the monopoly can be used to prevent a reduction in the barriers to entry or even affirmatively to raise them even higher. Java and Netscape would have reduced the monopoly power of Windows by allowing a greater variety of programs to function on a greater variety of operating systems. The social benefits from such innovation were likely significant, but Microsoft would have experienced significant losses from the innovation through the erosion of its monopoly power.

Similarly, this same point can provide the rationale for structural or conduct remedies that can potentially reduce barriers to entry and thus increase competition in part, or all, of the market. The fundamental idea is that Microsoft acted as it did because it was afraid that Netscape and Java would reduce the applications barrier to entry and thus undermine its operating systems monopoly. By preventing this anticompetitive behavior, and indeed promoting competition, a conduct remedy could have precisely the opposite effect, creating the conditions for the dynamic, innovative Schumpeterian competition that would otherwise be absent in this market.

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[12] Joseph Stiglitz (1987). "Technological Change, Sunk Costs, and Competition." *Brookings Papers on Economic Activity*, 3, pp. 883-937.

In understanding the monopoly in the operating systems market, and how it fits into the overall PC platform, it is useful to introduce some issues specific to this area. Timothy Bresnahan, a Professor of Economics at Stanford University and a former Deputy Assistant Attorney General and Chief Economist at the U.S. Department of Justice Antitrust Division, formulated the concept of "Divided Technical Leadership."[13] The concept is that although each aspect of the platform is dominated by a single company, different companies dominate different "layers" of the platform: "At one stage, all of IBM and Compaq (computer), Microsoft (OS), Intel (CPU), Netware (networking OS), WordPerfect and Lotus (near-universal applications) participated in technological leadership of the PC platform."[14] In a situation of divided technical leadership, according to Bresnahan, competition comes from two sources: "(1) firms in one layer encouraging entry and epochal change in another layer and (2) rivalry at layer boundaries."[15] To the degree that divided technical leadership is absent, because for example Microsoft controls many of the layers (operating system, office applications, networking, browsers, etc.), competition will be restricted. Any measures to facilitate divided technical leadership, even if they leave the monopoly at any given layer intact, will facilitate competition and thereby benefit consumers in the form of greater innovation, more choices, and lower prices.

**C. Consequences of monopoly**

Traditional economic theory suggests that the principal consequence of a monopoly is to raise prices and restrict production. This combination has two consequences. First, higher prices allow the monopolist to capture some of the surplus previously enjoyed by consumers. Second,

[13] Timothy Bresnahan and Shane Greenstein (1999), "Technological Competition and the Structure of the Computer Industry." *Journal of Industrial Economics*, 47(1): pp. 1-40 and Bresnahan (2001).
[14] Bresnahan (2001), p. 5.
[15] Bresnahan (2001), p. 6.

restricted production results in a deadweight loss for society, the so-called "Harberger triangle," to the extent that the value placed on the forgone consumption by consumers exceeds its cost to producers.[16]

Over the last few decades, economists have substantially enhanced this traditional theory and explored other ways in which market power imposes social costs. The modern view is that when competition is imperfect, firms try to maintain and extend their market power by taking actions to restrict competition. In the world of perfect competition, the source of success for firms is producing innovations that benefit consumers and reduce prices. In the world of imperfect competition, an additional – and perhaps paramount – source of success is the effort to reap monopoly profits, capture rents, deter entry into the market, restrict competition, and raise rivals' costs.[17]

Under the new view, the social costs of monopolies go well beyond the "Harberger triangles" that result from higher prices and restricted output. In fact, even if the monopolist is not currently restricting output, the steps taken to maintain the monopoly will result in substantial economic inefficiencies and costs to society. These costs may be far larger than the monopoly profits and far larger than the Harberger triangles. These social losses reflect higher costs of production (both for the firm and its rival), limited or distorted investment in innovation, a restricted set of potentially inferior choices for consumers, and, in the long run, higher prices.

[16] Arnold Harberger (1954), "Monopoly and Resource Allocation," *AEA Papers and Proceedings,* 44: 77-87.
[17] Partha Dasgupta and Joseph Stiglitz (1998), "Potential Competition, Actual Competition and Economic Welfare." *European Economic Review*, 32: 569-577. For an extended discussion and additional references see Joseph Stiglitz (1994), *Whither Socialism*, MIT Press, Cambridge.

**D. Monopolies and innovation**

The information technology industry is characterized by a rapid rate of technological change. As the modern theory of competition and monopoly underscores, it is important to focus not just on the static issues that affect consumers today, but also on how the mixture of monopoly, competition, and the intellectual property regime affects the pace and direction of innovation.

Schumpeter emphasized that monopolies would provide both the incentives and the means for innovation. According to Schumpeter, the fear of losing monopoly rents would drive a monopolist to continue innovating and these monopoly rents – or the promise of further monopoly rents in the future – would provide the financing for these innovations. Schumpeter's vision contains elements of truth: the threat of competition may induce monopolists to invest more in innovation than it otherwise might. But the pace of innovation may be even higher if the incumbent's monopoly power were curtailed. Monopoly power could lower the pace of innovation for four reasons.

First, previous innovations are inputs into any subsequent innovation. Monopoly power can be thought of as increasing the cost of one of the central inputs into follow-on innovations. Standard economic theory predicts that as the cost of inputs into any activity increases, the level of that activity falls.

Second, with more substantial barriers to entry, the threat of Schumpeterian competition and therefore the incentives to innovate are diminished. In the extreme case, if a monopoly could ensure that there were no threat of competition, it would no longer have to innovate. A monopolist's anticompetitive actions to raise barriers to entry will reduce its future incentives to

innovate; similarly measures that increase competition will increase the Schumpeterian incentive.

Third, innovation itself may be misdirected in order to secure a monopoly by deterring entry and raising rivals' costs. In operating systems, for example, the development of alternative proprietary standards and the construction of non-interoperable middleware are examples of innovations that could potentially strengthen monopoly power.

Fourth, the incentives of a monopoly to innovate are limited.[18] Since a monopolist produces less than the socially optimal output, the savings from a reduction in the cost of production are less than in a competitive market. Also, a monopolist's incentives to undertake research will not lead it to the socially efficient level. Rather, its concern is only how fast it must innovate in order to stave off the competition – a level of innovation that may be markedly lower than socially optimal. Consider, for example, a simple patent race in which a monopoly incumbent can observe the position (at least partially) of potential rivals. The monopolist's incentive is to move out in front of the potential rivals by just enough to convince them that they cannot beat the monopolist. Given those beliefs, the rivals do not engage in research, and the monopolist can then slow down its research to a lower level (since it no longer faces a viable threat).

In short, monopolization not only harms consumers by raising prices and reducing output in the short run, but may reduce innovation in the long run. These long-run harms, which are especially important in innovative industries, may substantially exceed the short-run costs to consumers.

[18] Kenneth Arrow (1962), "Economic Welfare and the Allocation of Resources for Invention." In *The Rate and Direction of Inventive Activity,* Princeton University Press, Princeton: pp. 609-625.

## V. FACTS AND LEGAL CONCLUSIONS RELATING TO MICROSOFT

In its decision, the Court of Appeals affirmed the District Court's overall judgment, albeit on a narrowed factual and legal basis. The Court of Appeals concluded that "Microsoft violated § 2 of the Sherman Act by employing anticompetitive means to maintain a monopoly in the operating system market."[19] In addition, the Court of Appeals overturned the lower court's judgment that Microsoft violated § 2 of the Sherman Act by attempting to monopolize the web browser market. The Court of Appeals remanded the decision on whether the tying of Internet Explorer to Windows violated § 1 of the Sherman Act and indicated that tying should be evaluated under the rule of reason, rather than under a *per se* rule; the U.S. Department of Justice chose not pursue this issue further. The Court of Appeals also vacated the District Court's Final Judgment, in part because of the narrowed scope of the judgment on the conclusions of law.

The current task in this case is to develop a remedy that addresses the central finding of the Court of Appeals: the monopolization of the operating systems market. This judgment was based on findings of fact and conclusions of law in three areas: Microsoft has monopoly power in the relevant market, Microsoft behaved anticompetitively, and Microsoft's anticompetitive behavior contributed to the maintenance of its monopoly. These are briefly discussed in turn.

### A. Monopoly power

Monopoly power is the power to set prices without regard to competition. It can be inferred by the combination of market share in the relevant market and significant barriers to entry. The District Court found that Microsoft's share of the worldwide market for Intel-compatible PC operating systems exceeded 90 percent in every year of the 1990s and has risen to

[19] 253 F.3d at 46.

more than 95 percent in recent years. Microsoft did not dispute these facts, but instead argued that the relevant market was broader and should include all platform software (e.g., servers, handheld devices, Macintosh computers, etc.). The Court of Appeals, however, rejected Microsoft's attempt to broaden the definition of the market, agreeing with the District Court that these other platforms were not "'reasonably interchangeable by consumers for the same purposes.'"[20]

In addition, the Court of Appeals affirmed the finding that Microsoft's dominant market share was likely to persist. This conclusion was based on the substantial barriers to entry, including increasing returns to scale and the applications barrier to entry discussed above. As a result, according to the Court of Appeals, "Because the applications barrier to entry protects a dominant operating system irrespective of quality, it gives Microsoft the power to stave off even superior new rivals. The barrier is thus a characteristic of the operating systems market, not of Microsoft's popularity."[21]

**B. Anticompetitive behavior**

The Court of Appeals found numerous instances where Microsoft behaved anticompetitively through exclusionary conduct that harmed consumers, had an anticompetitive effect, and had either no "procompetitive justification" or an insufficient "procompetitive justification" to outweigh the harm. These actions, according to the Court of Appeals, had the intention and effect of preserving or increasing the applications barrier to entry. The Court of Appeals upheld most of the general categories of anticompetitive behavior originally found by

[20] 253 F.3d at 52, quoting *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956).
[21] 253 F.3d at 56.

the District Court, but overturned some of the District Court's specific findings in these areas.

The key instances of this anticompetitive behavior found by the Court of Appeals include:

- **Restrictive Licenses to Original Equipment Manufacturers (OEMs).**[22] Microsoft's Windows license placed restrictions on OEMs that limited their ability to change the look of the Windows desktop, the placement or removal of icons for browsers, or the initial boot sequence. The result was to increase the user share of Internet Explorer, not because of its merits, but because Microsoft limited the crucial OEM channel of distribution for Explorer's chief rival, Netscape.

- **Integration of Internet Explorer into Windows.**[23] Microsoft discouraged OEMs from installing other browsers and deterred consumers from using them by not including Internet Explorer in the Add/Remove programs list for Windows 98 and commingling the operating system and browser code.

- **Agreements with Internet Access Providers (IAPs).**[24] Microsoft engaged in exclusionary conduct to restrict the second main distribution channel for Netscape by offering IAPs, including America Online, the opportunity to be prominently featured in Windows in exchange for using the Internet Explorer browser exclusively.

- **Dealings with ISVs and Apple.**[25] Microsoft further restricted additional outlets for Netscape by providing ISVs with preferential access to information about forthcoming releases of Windows 98 in exchange for their writing to Internet Explorer rather than Netscape. In addition, Microsoft negotiated with Apple to restrict the ability of Macintosh consumers to use Netscape in exchange for continuing to develop and support Microsoft Office for the Macintosh operating system.

- **Polluting Java.** The Court of Appeals also found that much of Microsoft's behavior vis-à-vis Java was an attempt to limit a threat to its operating system monopoly rather than benefit consumers. These illegal actions included entering into contracts requiring ISVs to write exclusively to Microsoft's Java Virtual Machine, misleading ISVs into thinking

[22] The Court of Appeals narrowed the scope of this anticompetitive behavior slightly, rejecting the District Court's finding that Microsoft's restrictions on alternative interfaces was anticompetitive, arguing that the "marginal anticompetitive effect" of Microsoft's license restrictions was outweighed by the alternative, the "drastic alteration of Microsoft's copyrighted work." See 253 F.3d at 63.

[23] The Court of Appeals, however, overruled the District Court in one instance, finding a sufficient justification for the fact that in certain situations Internet Explorer will override user defaults and launch, for example when alternative browsers do not provide the functionality required by Windows Update. See 253 F.3d at 67.

[24] The Court of Appeals found that several inducements offered by Microsoft to encourage IAPs to use Internet Explorer were not anticompetitive. See 253 F.3d at 68.

[25] The Court of Appeals overturned the finding that Microsoft's deals with Internet Content Providers were anticompetitive. See 253 F.3d at 71.

that Microsoft's Java tools were cross-platform compatible, and forcing Intel to terminate its work with Sun Microsystems on Java.[26]

**C. Effectiveness of anticompetitive behavior in maintaining the monopoly**

Finally, the Court of Appeals found that Microsoft's anticompetitive efforts to increase usage of Internet Explorer and Microsoft's Java Virtual Machine at the expense of Netscape and Sun's Java had the effect of increasing the applications barrier to entry and thus helping to maintain Microsoft's monopoly of the market for operating systems for Intel-compatible PCs. This finding is the crucial link to the economics of the case; a monopoly is neither automatically permanent nor automatically transient. Rather, its persistence depends, in part, on the barriers to entry which, in turn, depend on the actions of the monopolist and the regulation of the government. This finding is also crucial to the development of proposed remedies.

Specifically, the Court of Appeals found that although neither Netscape nor Java posed an imminent threat of completely replacing all the functions of the operating system (and thus should be excluded from the definition of the relevant market for the test of monopoly power), they did pose a nascent threat to Microsoft's future dominance of the operating system market. Though not part of the "operating systems market," they clearly affected the nature of competition in this market. Both Netscape and Java established Applications Programming Interfaces (APIs) that allowed developers to write *some* programs to Netscape and Java. These programs would then be able to run on any operating system that runs Netscape or Java. The result would be, at least in one segment of applications, a dramatic reduction in the applications barrier to entry. No longer would software developers have to incur additional costs to run on additional operating systems. As a result, Netscape and Java had the potential to act as a crucial

[26] See 253 F.3d at 74-78. The Court of Appeals, however, found a sufficient procompetitive justification for Microsoft's development of its own version of a Java virtual machine. See *id.* at 74-75.

level of "middleware" between the operating system and the programs, and eventually could "commoditize the underlying operating system," to use the memorable words of then-Microsoft Chairman and CEO Bill Gates in an internal memo.[27]

The Court of Appeals wrote:

> We may infer causation when exclusionary conduct is aimed at producers of nascent competitive technologies as well as when it is aimed at producers of established substitutes... the question in this case is not whether Java or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant's continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue."[28]

The court answered in the affirmative on both issues.

## VI. OUTLINE OF AN EFFECTIVE CONDUCT REMEDY

The Court of Appeals was clear that the District Court has "broad discretion" to fashion a remedy that is "tailored to fit the wrong creating the occasion for the remedy."[29] In the CIS, the Department of Justice appears to take a minimal view of the goals of a remedy, writing that it should "eliminate Microsoft's illegal practices, prevent recurrence of the same or similar practices, and restore the competitive threat that middleware products posed prior to Microsoft's unlawful undertakings."[30] We believe that the PFJ fails even within the narrow terms that the Department of Justice set for itself.

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[27] *United States v. Microsoft Corp.*, Government Exhibit 20.
[28] 253 F.3d at 79.
[29] 253 F.3d at 105, 107.
[30] CIS, p. 3.

The Court of Appeals appears to provide guidance for a broader remedy, quoting the Supreme Court in saying that the role of a remedies decree in an antitrust case is to "unfetter a market from anticompetitive conduct" and "terminate the illegal monopoly, deny the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future."[31]

One type of potential remedy, imposed by the District Court but vacated by the Court of Appeals, is structural. Such a structural remedy would involve breaking Microsoft into two or more companies with the goal of establishing a new set of incentives that foster competition. Although potentially disruptive in the short run, the goal of a structural remedy is to terminate the monopoly and create the structural conditions to prevent it from re-emerging, without requiring ongoing regulation or supervision by the court or the government. Such structural remedies are particularly suitable when there have been a wide variety of anticompetitive practices in the past and when changing market conditions (such as innovation) provide opportunities for new types of anticompetitive conduct in the future. Structural remedies have the further advantage of fundamentally altering incentives.

A second type of potential remedy relates to conduct or licensing, seeking to prevent anticompetitive conduct and foster competition. A conduct remedy has the advantage of avoiding the dramatic and potentially deleterious changes associated with a structural remedy, but suffers from the defect that it is necessarily complicated and requires at least some involvement of the court and the government in regulating private enterprise. Ideally, a conduct remedy would also be structured to affect incentives: in particular, such a remedy should raise the costs of acting in an exclusionary manner.

[31] 253 F.3d at 103, quoting *Ford Motor Co. v. United States*, 405 U.S.562, 577 (1972).

The remainder of this section discusses an outline of the elements of an effective conduct remedy that seeks to achieve three goals: creating more choices for consumers, reducing the applications barrier to entry, and preventing Microsoft from strengthening its operating systems monopoly by bringing new products within its scope.

**A. Creating more choices for consumers**

A conduct remedy should empower rival computer companies to modify their own versions of the computer experience to appeal to consumers. Not only will consumers benefit from the greater product choice, but entry and competition may be enhanced as consumers learn how to interact with a variety of interfaces. At a minimum, empowering OEMs and possibly ISVs to create more choices for consumers would involve: (1) the right to modify the desktop, the start menu, or other fundamental aspects of the computer experience so that OEMs can market PCs with alternative overall "looks", different software packages (including supplementing, replacing, or removing Microsoft middleware), and to offer lower-priced options with reduced features; (2) adequate information and technical access to develop applications for, and even modifications to, functionalities included with Windows, which would allow ISVs to develop their own bundle of the Windows operating system plus applications (and/or minus Microsoft middleware) that could be marketed either to OEMs or directly to end users; (3) protection from retaliation by Microsoft for engaging in this conduct; and (4) financial incentives to make changes that benefit consumers.

**B. Reducing the applications barrier to entry**

The central goal of Microsoft's illegal conduct was to preserve and strengthen the applications barrier to entry so that the Windows operating system continued to be essential to desktop computing. An effective conduct remedy in this case should take steps to reduce the applications barrier to entry, by creating conditions conducive to more competition and by requiring Microsoft to undertake actions that would lower that barrier. Reducing the applications barrier to entry is consistent with the findings of the Court of Appeals and is central to an effective remedy in this case. Although the Court of Appeals rejected or remanded the District Court's findings of liability for tying and for monopolization of the browser market, both of these actions were central to the Court's finding of liability on the § 2 Sherman Act violation for monopolizing the market for operating systems. The Court found that Microsoft used commingling of code and other exclusionary measures to increase the market share for Internet Explorer and reduce the distribution of Netscape and Java in order to strengthen the Windows monopoly.

There are two specific aspects to reducing the applications barrier to entry: (1) encouraging competition in middleware in a manner that makes it easier for developers to write programs that run on a variety of operating systems, and (2) requiring Microsoft to port its dominant applications to alternative operating systems.

**C. Preventing Microsoft from strengthening its operating system monopoly by bringing new products within its scope**

Microsoft's ability to leverage its Windows monopoly to control other aspects of computing that then reinforce the Windows monopoly is a key part of its strategy of

anticompetitive conduct that formed the foundation for the Court of Appeals ruling. To deal with the anticompetitive practices that are "likely to result in monopolization in the future" requires a remedy that addresses not just areas of past misconduct, but emerging areas as well.

The next section compares the actual agreement to these elements.

## VII. ANALYSIS OF THE PROPOSED FINAL JUDGMENT

The PFJ fails to fulfill even the minimal goals set by the CIS. It does not address many of the proven illegal practices, including commingling, polluting Java, and strengthening the applications barrier to entry more broadly. Furthermore, in our judgment the PFJ would not "restore the competitive threat that middleware products posed prior to Microsoft's unlawful undertakings."[32] Nothing in the PFJ would be likely to resuscitate the conditions of greater "divided technical leadership" that prevailed in the mid-1990s when Netscape and Java both presented a serious threat to Microsoft, which Microsoft suppressed through anticompetitive actions.

The PFJ also falls dramatically short of all three elements of the guidelines that appear to have been endorsed by the Court of Appeals for the D.C. Circuit: it allows Microsoft's illegal monopoly in operating systems to continue and perhaps even be strengthened, it allows Microsoft to keep the fruits of its statutory violation, and it leaves intact all of the incentives – and many of the means – for Microsoft to maintain and extend its monopoly in the future, especially in the important emerging areas of web services, multimedia, and hand-held computing.

[32] CIS, p. 3.

The main impact of the PFJ is to codify much of Microsoft's existing conduct. Where the agreement limits Microsoft's conduct, there are often sufficient exceptions, loopholes, or alternative actions that Microsoft could undertake to make the initial conduct limits meaningless. Even where the limits are binding, Microsoft could still flout the conduct restrictions without fear of a timely enforcement mechanism. Because the Technical Committee[33] is essentially advisory and only has expertise in software design, not law and marketing, the only enforcement of the PFJ is through a full legal proceeding – which would provide enough time for Microsoft to inflict irreversible harm on competition. The time issues are especially important because in a market characterized by increasing returns to scale and network externalities, once a dominant position is established it will be hard to reverse, even if the original abusive practices are subsequently circumscribed.

The fundamental problem with the agreement is that it does not change the incentives that Microsoft faces. All of the illegal anticompetitive actions identified by the District Court and affirmed by the Court of Appeals were the result of rational decisions by Microsoft about how best to enhance its value by maintaining and expanding its monopoly. These same incentives will persist under the PFJ; given these incentives, it impossible to foresee – let alone effectively prohibit – the wide variety of potentially anticompetitive conduct that may result. Indeed, the reason that many economists have argued for the more drastic structural settlement (such splitting up Microsoft) is that such structural changes would alter incentives.[34] Though the Court

[33] The Technical Committee consists of three experts in "software design and programming" – one appointed by Microsoft, one by the plaintiffs, and the third by these previous two. The Committee would have broad access to internal Microsoft documents, source code, etc. It would be responsible for reporting any violations of the PFJ to the plaintiffs. They would not, however, be able to rely on the work of the Technical Committee in Court proceedings. See PFJ, Section IV.B.

[34] See, for example, Robert Litan, Roger Noll, and William Nordhaus (2002), "Comment of Robert E. Litan, Roger D. Noll, and William D. Nordhaus on the Revised Proposed Final Judgment." *United States v. Microsoft Corp.*, Before the Department of Justice. The point is simple: now strategy with respect both to applications and the operating system is designed to maximize total profits, including the monopoly profits. With structural separation,

of Appeals has determined that such a remedy might be too drastic, the imperative in evaluating any remedy is to ascertain its impact on incentives.

The following analyzes the details of the PFJ by comparing it to the principles outlined in the previous section. Our discussion does not aim to be comprehensive, but instead to focus on areas that illustrate or represent important economic aspects of the PFJ. Although the enforcement aspects of the PFJ, in particular the powers of the Technical Committee, are essential to understanding the limitations of the agreement, we only briefly discuss these issues.

**A. Creating more choices for consumers**

In developing a remedy, the court is well aware of its technical shortcomings in deciding exactly what should or should not be included as part of an operating system today – or in the future. Neither should these determinations be made solely by a monopolist. These choices should be made by consumers through the choices they have between different OEMs and ISVs. Stanford Law Professor Lawrence Lessig described this strategy as follows: "To use the market to police Microsoft's monopoly... by assuring that computer manufacturers and software vendors remain free to bundle and support non-Microsoft software without fear of punishment by Microsoft."[35] We agree with Professor Lessig that this should be among the goals of a final judgment and that the current agreement is woefully inadequate in meeting this objective. In our view, this is in fact a minimal objective that mitigates some of the harms to consumers from Microsoft's monopoly position but, by itself, would do little to reduce the applications barrier to entry or facilitate competition in the operating systems market itself.

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applications would be designed and marketed to maximize their own profits, with no regard to how this might affect the profitability of the operating system.

[35] Lawrence Lessig (December 12, 2001). "Testimony before the Senate Committee on the Judiciary."

As noted above, a remedy that turns this overall strategy into a reality requires four different elements: (1) ensuring that OEMs and potentially ISVs have the right to modify the desktop, the start menu, or other fundamental aspects of the computer experience in any way they choose; (2) ensuring that OEMs and ISVs have adequate information and technical access to develop applications for, and even modifications to, Windows; (3) ensuring that they are protected from retaliation by Microsoft for providing alternatives to consumers; and (4) ensuring that they have financial incentives to make changes that benefit consumers. The PFJ is deficient in all four.

*1. Ensuring that OEMs and potentially ISVs have the right to modify fundamental aspects of the computer experience in any way they choose*

The PFJ codifies several new rights for OEMs to modify the desktop or the computer experience, some of which were already voluntarily announced by Microsoft on July 11, 2001 and implemented with the release of Windows XP on October 25, 2001. Specifically, Section III.C of the PFJ prohibits Microsoft from restricting OEMs from "Installing or displaying icons, shortcuts, or menu entries for, any Non-Microsoft Middleware... distributing or promoting Non-Microsoft Middleware by installing and displaying on the desktop shortcuts of any size or shape..." among other actions.

This new required latitude, however, is unduly limited in several respects:

- **New flexibility is quite narrow.** OEMs can only modify the initial boot screen to market IAPs to users, but cannot modify it to uninstall Microsoft middleware or to market middleware that competes with Microsoft middleware (Section III.C.5). Nothing in the PFJ would allow ISVs to acquire licenses to create their own bundles of Windows plus applications to market to consumers or OEMs, a measure that could enhance competition by bringing additional participants with substantial experience in software development into the market. While the benefits to consumers and competition of

allowing ISVs to acquire such licenses are evident, Microsoft would only be harmed to the extent that it reduces its monopoly power. There is no other convincing explanation for these restrictive trade practices.

- **It contains several limitations that limit the overall look of Non-Microsoft Middleware and pace of innovation.** For example, the PFJ requires that the user interface on automatically launched Non-Microsoft Middleware[36] must be "of similar size and shape to the user interface displayed by the corresponding Microsoft Middleware Product", can only be launched when a similar Microsoft product would have been launched, and Microsoft can impose non-discriminatory bans on icons (Section III.C.3). In addition to the fact that these limitation are frivolous, asymmetric, and would seem to serve no purpose other than restricting competitive threats – no such limitations apply to Microsoft – they could also have a severe impact in limiting competition. Specifically, it allows Microsoft to control the pace of innovation in the computer experience, letting Microsoft delay the effective launch of a new type of product until it is ready to compete in that area. Thus both competition and innovation may be impeded.

- **It is unnecessarily delayed.** Specifically, Section III.H gives Microsoft up to 12 months or the release of Service Pack 1 for Windows XP, whichever is sooner, to provide end users and OEMs a straightforward mechanism to remove icons, shortcuts, or menu entries for Microsoft Middleware Products or to allow OEMs or end users to designate alternative Non-Microsoft Middleware Products[37] to be invoked by the Windows operating system in place of Microsoft Middleware Products.[38] There is certainly no economic or legal justification for this delay and our understanding is that it is technically feasible to carry out these changes in a few weeks time, as demonstrated by Microsoft's July 11, 2001 voluntary agreement to implement elements of this provision. As we have emphasized, there can be significant long-run consequences for competition from even short delays.

- **Microsoft could encourage users to undo changes after 14 days.** The value of the new contractual freedoms is limited by Microsoft's ability to encourage the user to undo all OEM changes after 14 days by allowing a user-initiated "alteration of the OEM's configuration... 14 days after the initial boot up of a new Personal Computer." (Section III.H.3) This provision, in effect, would allow Microsoft to present a message to end users (e.g., "Press 'yes' to optimize your computer for multimedia") that could bias choices toward Microsoft products, regardless of what the OEM had chosen. This provision could therefore greatly reduce the scope and value of the changes that OEMs make.[39]

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[36] As defined in Section VI.M.
[37] As defined in Section VI.N.
[38] As defined in Section VI.K.
[39] This provision would allow Microsoft to run the "Desktop Cleanup Wizard" that removes unused shortcuts from the desktop in a non-discriminatory manner. Nothing in our reading of the language of Section III.H.3, however, would limit the power of Microsoft to remove all user access to non-Microsoft middleware or restore access to Microsoft middleware.

*2. Ensuring that OEMs and ISVs have adequate information and technical access to develop applications for, or even modifications to, Windows*

The right to make modifications to Windows will only work effectively if OEMs and ISVs have the knowledge to exercise this right. Microsoft currently releases an enormous quantity of information on the Windows operating system and its APIs, through the Microsoft Developer Network (MSDN) and other means. Indeed, the indirect network externalities supporting the Windows monopoly provide a strong incentive for Microsoft to ensure that as many applications as possible run well on its system. But Microsoft also has an incentive to bolster its operating system monopoly by selectively withholding timely information to impede or delay the development of products that threaten to reduce the applications barrier to entry.[40] In addition, Microsoft has also required anticompetitive actions in exchange for information, as in the "first wave" agreements found illegal by the Court of Appeals.[41]

The PFJ requires disclosure of "the APIs and related Documentation that are used by Microsoft Middleware to interoperate with a Windows Operating System Product" (Section III.D) and specified Communications Protocols (Section III.E).

These requirements, however, are deficient in several ways:

- **Windows APIs are not covered.** In particular, the PFJ does not require the disclosure of the APIs used by Windows. Although Microsoft already has an incentive to disclose Windows APIs, there are circumstances where delay could be more profitable. The consequences of this omission are aggravated by the definition in Section VI.U: "the software code that comprises a Windows Operating System Product shall be determined by Microsoft in its sole discretion." Thus, as middleware gets blended in the operating system, the scope of disclosures could be narrowed.

[40] For example, the District Court found that Microsoft withheld the "Remote Network Access" API from Netscape for more than three crucial months in mid-1995. Findings of Fact, ¶ 90-91, 84 F. Supp. 2d at 33.

[41] These agreements, which were entered into between the Fall of 1997 and Spring of 1998 between Microsoft and several ISVs, provided preferential early access to Windows 98 and Windows NT betas and other technical information in exchange for using Internet Explorer as the default browser. See See 253 F.3d at 71-72.

- **Internet Explorer and other middleware APIs are not covered.** Furthermore, the agreement does not require the disclosure of the APIs used by Internet Explorer. Although the government did not prove that Microsoft was guilty of monopolizing the browser market, dominating this market played a key role in shoring up its monopoly in the operating systems market. As a result, requiring disclosure of the APIs for Internet Explorer and other middleware could play a role both in denying the fruits of that monopoly and reducing this barrier to entry in its operating systems market.

- **Definitions could limit disclosure even further.** The scope of APIs required to be disclosed under the agreement could be potentially limited even further by the control Microsoft has over what is "Microsoft Middleware" and what is the "Windows Operating System Product."

- **Additional loopholes further limit disclosure and ability of non-Microsoft middleware to fully interoperate with Windows.** Section III.J.1 provides a substantial loophole that exempts from the disclosure requirements anything that "would compromise the security of a particular installation,... digital rights management, encryption or authorization systems..." These are all very important technologies for Windows Media Player, Passport, the Internet Explorer browser, and any of the many programs that rely increasingly on security and encryption. In addition to giving Microsoft substantial discretion and blurring the disclosure requirements further, these exceptions would make it impossible for competitors to design middleware that fully interoperated with the Windows operating system, leaving certain features only accessible to Microsoft middleware.

- **Disclosures are not timely.** The disclosures are not very timely, allowing Microsoft enough time to ensure that its products – and products by favored OEMs and ISVs – enjoy a substantial "first to market" benefit in taking advantage of the functionality of the operating system. Microsoft has up to 9-12 months to disclose the APIs and communications protocols. In the case of a new version of the Windows Operating System Product, the PFJ bases the timing of the disclosure on the number of beta testers, effectively giving Microsoft substantial discretion over the timing of the required disclosures through its definition of the term "beta tester" and its control over their number. (Sections III.D and VI.R)

- **Microsoft could cripple rival products.** The PFJ does nothing to prevent Microsoft from deliberately making changes in Windows with the sole or primary purpose of disabling or crippling competitors' software products.

*3. Ensuring that OEMs and ISVs are protected from retaliation by Microsoft for providing alternatives to consumers*

The right to make alterations to the Windows desktop will only be effective if companies are protected from retaliation for exercising it. The PFJ provides some protection against retaliation (Section III.A) and requirements for uniform licensing and pricing for Microsoft Windows (Section III.B). The protections, however, are only partial, in that they omit several important behaviors, still leave substantial scope for Microsoft to retaliate, and contain a very large loophole.

First, the prevention against retaliation only applies to a very specific set of actions that are specified in the PFJ, such as altering the icons on the desktop or promoting an IAP in the initial boot sequence. This rule does not apply to other actions by OEMs, such as the inclusion of third party software that does not fall under the definition of Non-Microsoft Middleware.

Second, there may still be some scope for discrimination and retaliation. Section III.B.3 of the PFJ explicitly gives Microsoft the right to use "market development allowances," for example to provide a pre-license rebate to selected OEMs on the basis of potentially ambiguous joint ventures. Although these incentives would have to be offered uniformly, there still could be some scope for defining them in an exclusionary manner. Furthermore, the relationships between Microsoft and computer companies are very complex and multifaceted, leaving substantial scope for retaliation in aspects not covered by the PFJ, including potentially the pricing of Microsoft Office and the server business.

Finally, Section III.A allows Microsoft to terminate the relationship with an OEM without cause and within a brief span of time simply by delivering two notices of termination. With no ready substitutes for Windows available, this power would give Microsoft substantial

leverage in its relationships with OEMs. Although the OEM would have the option of litigating Microsoft's denial of a Windows license, the text of Section III.A and the lack of "bright line" rules in the PFJ would make this litigation costly and uncertain – and thus an imperfect means of protection against this threat.

*4. Ensuring that OEMs have financial incentives to make changes that benefit consumers*

Even if the three previous conditions were met, they would be economically irrelevant if OEMs did not have financial incentives to take advantage of the new licensing freedoms. The production of PCs is a highly competitive industry with very low profit margins.[42] PCs are virtually a commodity that can be priced based on a limited set of characteristics like processor speed and hard drive size. All of the steps allowed by the PFJ – including installing non-Microsoft middleware or removing user access to Microsoft middleware – entail higher costs for the OEMs both in the costs associated with the initial configuration of the system and in the added costs of end user support.[43] In addition, OEMs may perceive that Microsoft would take additional steps to raise their costs through forms of retaliation either permitted by the PFJ or imperfectly banned. These costs may explain why, to our knowledge, no major computer manufacturer has yet taken Microsoft up on its July 11, 2001 offer to remove access to Microsoft middleware and replace it with non-Microsoft middleware.[44]

As a result, the key source of greater competition and consumer choice in the computer experience – OEMs – would have limited economic basis for promoting such choice. In part this is because the value of some of the new freedoms obtained by the OEMs in the PFJ are limited

[42] For example, the *Washington Post* recently noted that profit margins are in "single digits." See Rob Pegoraro and Dina El Boghdady (January 20, 2002), "Building Creativity Into the Box" *Washington Post.*
[43] In the Microsoft trial numerous industry witnesses testified to the user confusion and added support costs associated with having alternative browsers pre-installed on a computer. See 253 F.3d at 71-72.
[44] Microsoft Press Release (July 11, 2001), "Microsoft Announces Greater OEM Flexibility for Windows."

by loopholes. For example, by allowing Microsoft to bar OEMs from marketing non-Microsoft middleware in the initial boot sequence, the PFJ removes one source of revenue and choice. In addition, allowing Microsoft to encourage users to "voluntarily" revert to the Microsoft-preferred configuration of icons, the Desktop, and the Start Menu after 14 days may reduce substantially the value of this screen "real estate." As a result, the PFJ precludes some of the principal means by which OEMs could be remunerated for providing additional or alternative functionality desirable to consumers.

The more fundamental problem is that OEMs continue to be required to license a version of Windows that includes middleware like Internet Explorer, Windows Media Player, and Windows Messenger. By not requiring Microsoft to sell a cheaper, stripped-down version of the operating system – excluding many of these added features – the PFJ in effect would require OEMs to pay twice – once for Microsoft's version of the product (as bundled into the price of Windows) and once for the alternative. Such bundling is a particularly invidious way of undermining competition. In effect, it implies that the marginal cost of any item in the bundle is zero, making competitive entry, even for a superior product, impossible. The fact that such entry has occurred is testimony to the superiority of the rival products – consumers are willing to pay substantial amounts for the alternatives. In addition, forced bundling can have adverse effects on consumers, because it uses up memory and storage space, and there is always the possibility that the commingled code will interfere with the performance of other applications.

In summary, under the PFJ, OEMs are not provided the rights, means, protections, or incentives to create alternative choices for consumers. As a result, the lynchpin of the PFJ's strategy for promoting competition would be greatly attenuated.

**B. Reducing the applications barrier to entry**

The applications barrier to entry was central to the Court of Appeals' understanding of this case. It is the principal barrier to entry that protects Microsoft's overwhelming dominance of the market for operating systems for Intel-compatible PCs. Furthermore, the court found that Microsoft engaged in illegal acts to increase the applications barrier to entry, principally by suppressing Netscape and Java at the expense of Internet Explorer and Microsoft's version of Java. Thus, any remedy that is "tailored to fit the wrong creating the occasion for the remedy" must necessarily take affirmative steps to reduce the applications barrier to entry and also prevent Microsoft from engaging in anticompetitive actions to increase this barrier. Unfortunately, the PFJ barely addresses this central issue.

The following discusses two key aspects of the applications barrier to entry: the use of anticompetitive means to reduce the market share of rival middleware (and thus its potential to reduce the cost of porting applications to different operating systems) and the use of decisions about Microsoft Office to influence the prospects of rival operating systems.

*1. Middleware and the applications barrier to entry*

The CIS states that under the PFJ, "OEMs have the contractual and economic freedom to make decisions about distributing and supporting non-Microsoft software products that have the potential to weaken Microsoft's personal computer operating system monopoly without fear of coercion or retaliation by Microsoft."[45] Even if the PFJ did give OEMs this contractual and economic freedom without fear of retaliation, and the previous subsection expressed severe doubts on this point, it still would do little if anything to weaken Microsoft's operating system monopoly.

[45] CIS, p. 25.

Enhancing competition by allowing OEMs and ISVs to provide consumers with a greater variety of choices, the subject of the previous subsection, is in some sense literally superficial. It involves the ability of firms in the computer industry to change the outer appearance of a computer and the way it is perceived and used by users, including the ability and ease of accessing programs that are included with the Windows operating system or added by the OEM or end user. The issues raised by the applications barrier to entry go deeper, to the underlying code in Windows. In particular, although the PFJ allows end users or OEMs to remove user access to Microsoft Middleware, it also allows Microsoft to leave in place all of the programming underlying this middleware. This code could still be accessed by other programs that write to the APIs exposed by the middleware.

The Court of Appeals explicitly rejected Microsoft's explanation for commmingling the code of Windows 98 and Internet Explorer, concluding that it deterred users from installing Netscape, had no substantive purpose, and thus that "such commingling has an anticompetitive effect."[46] Despite this strong finding, no provision in the PFJ addresses this issue.[47]

Netscape and Java represented a very rare challenge to Windows – they offered the opportunity to develop middleware that would allow a wide range of applications to be costlessly transferred between different systems. It is difficult to imagine when, if ever, there will be a challenge of this magnitude again. Nonetheless, some existing middleware – and future middleware that we may not even be able to forecast today – will continue to present challenges to Windows. For example, there is still substantial competition in the market today for multimedia players, with Windows Media Player, RealNetworks RealOne player, and Apple's QuickTime, among others, all offering different versions of similar functionality.

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[46] See 253 F.3d at 66.

[47] The Court of Appeals rejected, *per curiam*, Microsoft's petition for a rehearing on this point. Order (D.C. Cir. Aug. 2, 2001).

The treatment of middleware is crucial because the market for middleware, like the market for operating systems, is subject to substantial network externalities. These externalities mean that the desirability of a middleware package increases as the installed user base increases. As with operating systems, such externalities arise for direct reasons (e.g., users can share files in a particular media format) and indirect reasons (writing a program to different middleware, so the dominant middleware will have the most programs associated with it). With regard to indirect network effects, the key point is that the installed base is not the number of computers with shortcuts to the given middleware, but the number of computers with the underlying code permitting the middleware to be invoked by a call from another program. A programmer that wanted to develop, for example, an interactive TV program could still use Windows Media Player regardless of whether or not an OEM or end user had removed the icons or shortcuts that allow easy user access to this program.

By providing no means for OEMs or end users to undo the commingling of code that ties Microsoft middleware to the operating system, the PFJ ensures that Microsoft middleware will have an installed base, in the relevant sense, of nearly the entire PC market. As a result, programmers will find it cheaper to write to Microsoft middleware rather than to rival programs. In this case, ubiquity could trump quality – because the size of a middleware's installed base could be more important than the quality of the middleware program.

Microsoft middleware thus increases the applications barrier to entry in the same manner that promoting Internet Explorer and restricting the distribution of Netscape do. By allowing Microsoft to continue to commingle the code for middleware and its operating system, and preventing OEMs or end users from making real choices, the PFJ contributes to Microsoft's

ability to restrict the market share of its rivals in neighboring "layers" to the operating system, reducing the main form of potential future competition at "layer boundaries."

*2. Microsoft Office and the applications barrier to entry*

As noted above, in the mid-1990s, Microsoft Windows was compatible with more than twenty times as many programs as IBM's OS/2 Warp. This offers a dramatic example of the applications barrier to entry. One crucial feature of Microsoft is that in addition to producing the Windows operating system, it is also a leader in many other applications. Network externalities work here to help create and maintain market dominance. Thus, for a rival operating system to succeed it would need not only to persuade "neutral" software companies to write to it, but also persuade Microsoft itself to port some of its leading applications to the operating system. To the degree that Microsoft produces leading or essential applications, they can use their refusal to port these applications to reinforce their Windows monopoly.

One application, in particular, is especially important to users: Microsoft Office and its associated programs, including Word (for word processing), Outlook (for e-mail and scheduling), Excel (for spreadsheets), and PowerPoint (for presentations). Indeed, Microsoft Office has about 95 percent of the market for business productivity suites.[48]

The Court of Appeals affirmed the District Court's finding that the desire by Apple to ensure that Microsoft continued to maintain and update Mac Office was central to its motivation to enter into an illegal, anticompetitive deal with Microsoft to suppress Netscape and promote Internet Explorer. In addition, Microsoft does not currently have a version of Office that operates on Linux, the primary alternative to Windows in the PC operating system market. Withholding or simply threatening to withhold Microsoft Office from other operating systems is

[48] Richard Poynder (October 1, 2001). "The Open Source Movement." *Information Today*, 9:18.

a powerful way in which Microsoft can use anticompetitive means to reduce the desirability of rivals while also extracting concessions or exchanges that help support the Windows monopoly of PC operating systems.

The PFJ, however, does not address any issues relating to the pricing, distribution, or porting of Microsoft Office. This considerable loophole has been used by Microsoft in the past. In the future, Microsoft will have the same incentives to use this loophole again. In addition, it may be necessary to examine additional Microsoft applications that can be used to reinforce the Windows monopoly. Given the difficulty of undoing a monopoly of this sort, once established, it is particularly appropriate to reach beyond remedies that are narrowly circumscribed.

**C. Preventing Microsoft from strengthening its operating system monopoly by extending it to encompass additional products**

The Court is charged with fashioning a remedy that "ensure[s] that there remain no practices likely to result in monopolization in the future." Some of the most important newly emerging areas are multimedia, networking, web services, and hand-held computing. Microsoft is already making substantial investments in these areas with its .NET strategy, Microsoft Passport, MSN, Windows Messenger, Windows Media Player, and the Pocket PC operating system.

The recently released Windows XP is characterized by substantial integration between all of these features; indeed the seamless integration is one of Microsoft's chief selling points for Windows XP. Microsoft has marketed Windows XP (standing for "experience") on the basis of its seamless integration between the Internet, multimedia, and the computer. For example, on the day it was released, a Microsoft press release announced, "Windows XP Home Edition is

designed for individuals or families and includes experiences for digital photos, music and video, home networking, and communications."[49]

Like Internet Explorer, these new areas present new opportunities for Microsoft to leverage its monopoly in the operating system to dominate other markets. In addition, Microsoft could use its strong or dominant position in these new markets to erect new barriers to entry that prevent potential competitors from offering products and services with part or all of the functionality provided by Windows. For example, if Passport is successful then a rival operating system would not just need to persuade other developers to write for it, but would also need to develop its own version of Passport and convince numerous e-commerce sites to use it. If the rival operating system failed in any of these steps, its attempts to establish itself could be seriously curtailed. The PFJ, however, does not address any aspects of these important emerging barriers to entry.

## VIII. STEPS TO IMPROVE THE PROPOSED FINAL JUDGMENT: THE LITIGATING STATES' ALTERNATIVE

The goal of this Declaration is to explain why we believe that the PFJ is deficient and why the Court should exercise its discretion to fashion a remedy in this case that would promote competition and benefit consumers. We do not propose an alternative remedy or provide an exhaustive analysis of any other proposals. Our analysis of the shortcomings of the PFJ, however, can be illustrated and strengthened by a selective comparison of some of the provisions

[49] Microsoft Press Release, "Windows XP is Here!" 10/15/01.

in the PFJ with the proposal transmitted to the court by the nine litigating States and the District of Columbia on December 7, 2001.[50]

Many of the issues in the "Plaintiff Litigating States' Remedial Proposals" are technical and involve loopholes, some of which were discussed above including stronger anti-retaliation provisions and a broader definition of middleware that could not be manipulated by Microsoft. In addition, this proposed remedy makes an important change in enforcement: it proposes a Special Master, rather than requiring new legal proceedings to enforce the judgment. None of these important issues are discussed here. Instead, we focus on selected areas in which the litigating States' proposal illustrates some of the principal economic points identified in the preceding analysis.

### A. Fostering competition through OEMs and reducing the applications barrier to entry

The litigating States proposal would require Microsoft to license a cheaper version of Windows that does not include commingled code from added middleware.[51] In addition, the proposal would require Microsoft to continue to license older versions of its operating system without raising its prices. This would have two effects. First, it would more effectively promote competition and consumer choice by allowing OEMs to ship computers with a wide range of alternative middleware, thereby allowing consumers to choose between different versions or

[50] *United States v. Microsoft Corp.*, "Plaintiff Litigating States' Remedial Proposals," in the U.S. District Court for D.C, December 7, 2001.

[51] The Court of Appeals overturned the District Court, finding that Microsoft could not be held liable for the fact that in certain situations, like updating Windows or accessing help files, Internet Explorer overrides the user's default browser settings and opens automatically. This implies that the complete removal of HTML-reading software is impossible. But Windows could be shipped with, for example, a stripped-down browser that performs essential system functions. Most of the functionality of Internet Explorer, however, is not necessary for the examples Microsoft invoked. This is analogous to the way in which Windows is shipped with a stripped-down text editor, Notepad, but not with a full-fledged word processor.

different price-feature combinations. The lack of financial incentives for OEMs to take advantage of the more liberalized licensing rules is one of the principal deficiencies in the PFJ.

Moreover, such a provision would provide Microsoft with better incentives; only if it produced an operating system which performed substantially better would it be able to sell its new releases. It would at least attenuate its ability to use new releases as a way of extending its market power. Some have advocated even stronger measures to ensure Microsoft faces pro-consumer, pro-competition incentives, including requiring Microsoft to release all of its Windows source code and requiring the free distribution of its operating system after 3 to 5 years.

Second, this provision would directly address the Court of Appeals finding that Microsoft's commingling of code was anticompetitive. By disentangling the middleware from the operating system, this proposal would allow greater competition in middleware – and thus ultimately in operating systems – by reducing the network externalities that benefit Microsoft middleware at the expense of potentially superior products.

**B. Internet Explorer browser open source and Java distribution**

Two of the fruits of Microsoft's monopolization of the operating systems market are the dominance of the Internet Explorer browser and the destruction of Java as a viable competitor. The anticompetitive measures that helped achieve these goals protected a crucial "chink in the armor" of the Windows operating system. The PFJ does nothing to "deny the defendant the fruits of its statutory violation."[52] Furthermore, it does not enhance the ability of competitors to interoperate with Internet Explorer because it includes no disclosure requirement for the Internet Explorer APIs.

[52] 253 F.3d at 103, quoting *United States v. United Shoe Mach. Corp.*, 391 U.S. 244, 250 (1968).

The litigating States propose to remedy these deficiencies by requiring Microsoft to publish the source code and APIs for Internet Explorer and freely license them to competitors. In addition, their proposal would require Microsoft to distribute a Sun-compatible version of Java Virtual Machine with all future operating systems. The result would be to decrease the applications barrier to entry and promote competition.

**C. Cross-platform porting of Office**

As discussed in the previous section, Microsoft Office is one of the most crucial applications for many users. The existence of this application for a particular operating system is one key factor in the demand for the operating system. The litigating States' proposal would remove the ability of Microsoft to either threaten to withhold Office or actually withhold Office by requiring Microsoft to continue to port Office to Macintosh. In addition, the proposal would require Microsoft to auction off licenses to ISVs that would provide them with the entire source code and documentation for Office in order for them to port the product to alternative operating systems. Although we draw no conclusions about the particular rules proposed by the litigating States, this proposal would clearly reduce Microsoft's ability to deliberately raise the applications barrier to entry.

**D. Mandatory disclosure to ensure interoperability**

The PFJ requires some disclosure to ensure that Microsoft is not able to withhold certain information to illegally benefit Microsoft Middleware at the expense of Non-Microsoft Middleware. The disclosures are limited in scope and timing. The litigating States' proposal is substantially broader.

Of particular importance, the litigating States' proposal recognizes that "nascent threats to Microsoft's monopoly operating system currently exist beyond the middleware platform resident on the same computer" and thus the States' proposal requires timely disclosure of technical information to facilitate "interoperability with respect to other technologies that could provide a significant competitive platform, including network servers, web servers, and hand-held devices."[53] In doing this, the proposal would reduce the ability of Microsoft to use its dominant position in operating systems to eliminate emerging threats at the boundary of this "layer" of computing.

## IX. CONCLUSION

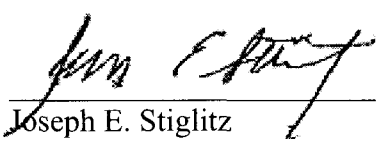
The Revised Proposed Final Judgment agreed to by the U.S. Department of Justice, the Attorneys General of nine States, and Microsoft Corporation is critically deficient. The overall aims of the PFJ are laudable – to increase competition and reduce Microsoft's ability to maintain its monopoly at the expense of consumers. But the PFJ will not succeed in achieving these goals. It does not change any of the incentives faced by Microsoft to undertake anticompetitive actions. It restrains these anticompetitive actions only with highly specific and exception-ridden conduct requirements. And it has an insufficient enforcement mechanism.

The interest of consumers in a greater range of choices, lower prices, and greater innovation would be served by rejecting the PFJ and replacing it with a more effective conduct remedy. A remedy for this case should recognize that the monopoly power created by Microsoft's past anticompetitive, illegal practices is likely to persist, and that it will therefore be likely to continue to enjoy the fruits of its illegal behavior, unless there are far stronger remedies

[53] Litigating States, pp. 10-11.

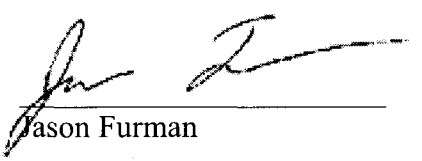
than those in the PFJ. The new remedy should change Microsoft's incentives. It should restrict Microsoft's ability to repeat its past, or develop new, anticompetitive practices. It should provide OEMs and ISVs with the means and incentives to stimulate genuine competition in the provision of platforms. And it should take whatever steps are possible to reduce the applications barrier to entry so that there is greater scope for genuine competition in the market for PC operating systems.

I, Joseph E. Stiglitz, declare under penalty of perjury that the foregoing declaration is true and correct. Executed on January 28, 2002.



Joseph E. Stiglitz

I, Jason Furman, declare under penalty of perjury that the foregoing declaration is true and correct. Executed on January 28, 2002.



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**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF COLUMBIA**

| | |
|---|---|
| UNITED STATES OF AMERICA,<br><br>Plaintiff,<br><br>v.<br><br>MICROSOFT CORPORATION,<br><br>Defendant. | Civil Action No. 98-1232 (CKK) |
| STATE OF NEW YORK, *et al.*,<br><br>Plaintiffs,<br><br>v.<br><br>MICROSOFT CORPORATION,<br><br>Defendant. | Civil Action No. 98-1233 (CKK) |

# DECLARATION OF EDWARD ROEDER

Edward Roeder declares under penalty of perjury as follows:

## I. INTRODUCTION

1. I am a Washington journalist, author, lecturer, and editor, expert on the U.S. Congress, elections and efforts to influence the U.S. government. My byline has appeared in most major U.S. newspapers, many top magazines, and on all major wires and networks. I have written, edited, produced and reported on money in politics, Congressional ethics and the American political economy for more than three decades. My experience includes work as a Senate subcommittee counsel, House select committee chief investigator, United Press International editor, publisher, White House speechwriter, government aide at level GS-15, freelance reporter and publisher.

I founded Sunshine Press Services, Inc., a Washington news service and publishing house specializing in "Casting Light on Money and Politics." Sunshine has developed *References to Use, Not Just Peruse*™, computer-based reference works on U.S. politics. As National Political/Finance

Editor for United Press International, I produced the nation's first weekly state-by-state computer-generated reports on federal election financing.

In 1974, I became the first freelance correspondent fully accredited to U.S. House & Senate Press Galleries. As a freelance print and broadcast reporter, I specialized in covering elections and election financing. In *Roeder v. FEC*, I successfully sued Federal Election Commission under the federal Freedom of Information Act, forcing a reduction in fees for records and release of computerized data.

My experience includes lecturing about covering influences on government at the graduate schools of journalism at Columbia, Northwestern (Medill), American, Maryland and other universities, and at the Hastings Center, the Heritage Foundation, and many other forums, and testifying before U.S. House and Senate committees. I also taught a public affairs course, *Shadow Government in the Sunshine State*, for three terms at Florida State University. I have appeared on ABC's Nightline, the CBS Evening News, World News Tonight (ABC), NBC Nightly News, All Things Considered (NPR), John McLaughlin, and many other broadcast outlets.

My reference publications include *PACs Americana*, the 1,150-page authoritative reference on political action committees and their interests, **Congress On Disk**™, the pioneer diskette publication on politics, **PAC-Track**™, covering all transactions by political action committees and party committees, **FatCat-Track**™, covering "soft money" and all contributions of $200-and-up from individuals to any federal party, campaign or PAC, and **Ready Money Reports**™, comparing relative financial standings of each federal campaign. A partial list of news clients is attached as Appendix B.

2. I was commissioned by the Computer & Communications Industry Association to conduct a review of publicly available documents, news reports, and commentary regarding Microsoft's lobbying and political contributions since the United States Department of Justice and 19 States filed suit against Microsoft in 1998.[1]

3. My review of the available documents has led me to conclude that over the past five years Microsoft has engaged in a "pattern and practice" of political influence peddling in many ways unprecedented in modern political history.[2] What makes Microsoft's lobbying efforts so unique is

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[1] I am aware that Microsoft has undertaken an effort to use the Court discovery process to build a political case against its competitors. The relevancy of Microsoft's strategy will have to be determined by the Court since Microsoft – and not its competitors – have been found to be liable under the antitrust laws. I took input and advice from a broad range of sources in conducting this research, including CCIA and its members. This research is nonetheless based on the extraordinary public record of Microsoft's political activities during the timeframe of this case. I have also undertaken extensive original review of the records of the Federal Election Commission regarding election finance. These records covering all election cycles since 1970-80 have been available in computerized format since the court-ordered settlement of *Roeder v. FEC*, a Freedom of Information lawsuit I filed in this very courthouse two decades ago.

[2] "Microsoft Targets Funding for Antitrust Office." Dan Morgan and Juliet Eilperin. Washington Post October 15, 1999. "Pro-Microsoft lobbying to limit antitrust funding irks top lawmakers." The

not necessarily the size (i.e. level of political contributions) but the scope of its efforts and the speed at which Microsoft went from having almost no political presence in Washington D.C. to having one of the largest and most sophisticated political operations in history.

4. By "scope" I am referring to the breadth of Microsoft's efforts. Microsoft has not merely established one of the largest Political Action Committees, or leapt to the top of the corporate contributor list in "soft money," unregulated corporate contributions. Over the past five years Microsoft has also assembled a large lobbying office and retained dozens of high-powered consultants; Microsoft has created numerous "front" groups and has contributed heavily to a variety of think tanks and other organizations willing to espouse Microsoft's view of antitrust policy and this case; and Microsoft has created a variety of grassroots capabilities that appear to be directed at state-level government.

5. Two key factors indicate that Microsoft's lobbying efforts were designed and directed to try to minimize the impact of its lawsuit and try to achieve a result in the political process that it is

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Wall Street Journal October 15, 1999. "Microsoft Paid For Ads Against DoJ Case." Madeleine Acey. TechWeb September 20, 1999. "Microsoft Paid For Ads Backing Its Trial Position." David Bank. The Wall Street Journal September 20, 1999. "Microsoft Paid For Ads Backing It In Trial." Seattle Times September 19, 1999. "Pro-Microsoft Ads Were Funded by Software Giant." Greg Miller. Los Angeles Times September 18, 1999. "Microsoft Paid for Ads About Trial." Associated Press September 18, 1999. "Microsoft Covered Cost of Ads Backing It in Antitrust Suit." Joel Brinkley. New York Times September 18, 1999. "Rivals fear Microsoft will cut a deal." John Hendren. The Seattle Times June 21, 2001. "Bush's Warning: Don't Assume Favors Are Due." Gerald F. Seib The Wall Street Journal January 17, 2001. "Bounty Payments are offered for pro-Microsoft letters and calls. " The Wall Street Journal October 20, 2000. "Microsoft is Source of 'Soft Money' Funds Behind Ads in Michigan's Senate Race. " John R. Wilke. The Wall Street Journal October 16, 2000. "Microsoft leans creatively on levers of political power as breakup decision looms, 'stealth' lobbying efforts aim for survival." Jim Drinkard and Owen Ulmann. USA Today May 30, 2000. "Microsoft's All-Out Counterattack." Dan Carney, Amy Borrus and Jay Greene. BusinessWeek May 15, 2000. "Aggressiveness: It's Part of Their DNA." Jay Greene, Peter Burrows and Jim Kerstetter. BusinessWeek May 15, 2000. "The Unseemly Campaign of Microsoft." Mike France. Business Week April 24, 2000. "Microsoft's Lobbying Abuses." Editorial. New York Times November 1, 1999 "Awaiting Verdict, Microsoft Starts Lobbying Campaign." Joel Brinkley. New York Times November 1, 1999. "Microsoft Seeks Help Of Holders." John R. Wilke. The Wall Street Journal November 1, 1999. "Microsoft's Bad Lobbying." Editorial. Washington Post October 24, 1999. "Microsoft Attempt To Cut Justice Funding Draws Fire." David Lawsky. Reuters October 17, 1999. "Microsoft Targets Funding for Antitrust Office." Dan Morgan and Juliet Eilperin. Washington Post October 15, 1999. "Pro-Microsoft lobbying to limit antitrust funding irks top lawmakers." The Wall Street Journal October 15, 1999. "Microsoft Paid For Ads Against DoJ Case." Madeleine Acey. TechWeb September 20, 1999. "Microsoft Paid For Ads Backing Its Trial Position." David Bank. The Wall Street Journal September 20, 1999. "Microsoft Paid For Ads Backing It In Trial." Seattle Times September 19, 1999. "Pro-Microsoft Ads Were Funded by Software Giant." Greg Miller. Los Angeles Times September 18, 1999. "Microsoft Paid for Ads About Trial." Associated Press September 18, 1999. "Microsoft Covered Cost of Ads Backing It in Antitrust Suit." Joel Brinkley. New York Times September 18, 1999.

apparent it could not achieve in the legal process. First, Microsoft's efforts are *new*. Their onset coincides with the time the government sued Microsoft and they have continued and escalated ever since. Second, Microsoft's efforts are completely out of proportion to the rest of the high-technology industry. There is not one other example of a software, computer hardware, or Internet firm that comes anywhere near Microsoft's level of campaign contributions.

6. I am not a lawyer, an expert on antitrust or an expert on the Tunney Act. My substantive views of of the Proposed Final Judgment are based primarily on the analysis of Nobel economist Joseph Stiglitz, whose declaration also supports the CCIA submission.

7. The Tunney Act was enacted after the ITT scandal during the Watergate affair. As the court is aware, Watergate spurred a number of political reforms requiring "sunshine" on the political activities of special interests, in particular. But the Tunney Act was also enacted during a different political era, when political influence peddling was far less sophisticated than it has become after a quarter-century of efforts to circumvent the "reforms" of the 1970s. By necessity, political influence peddling is no longer necessarily marked by a single "transaction" or a single "meeting," or even an overt "*quid pro quo*." In fact, one of the effects of the modern reforms has been to legalize many activities – especially the transfer of funds from corporate to political coffers – that had long been illegal under laws in effect since 1907 or 1934. Lobbying today is marked by incrementalism, where there may not be any single meeting, or any single contribution, or any single agreement. Rather, over time, what may develop is an "understanding" of the respective parties' interests, objectives, and desired outcomes. Instead of corruptly influencing politicians to buy a discreet government decision, the money exerts far broader influence over appointments, policy frameworks or positions, and ultimately, decisions. Much of it may be legal, but it's far more corrupting than simple bribery.

The simple matter of paying off a corrupt politician to obtain a favorable government decision is certainly offensive and unfair to the voters and those who are disadvantaged by the decision. Yet such petty or grand corruption, if isolated, does not seriously threaten the American system. What Microsoft has accomplished over the past half decade, however, presents a far darker prospect. By pouring money into America's institutions of political pluralism, rewarding those organizations and individuals that do its bidding and denying or limiting funding to its opponents, Microsoft has in some ways corrupted American political discourse itself. Newspapers that have run an editorial or opinion article sympathetic to a Microsoft position, reporters who have interviewed a professor, politician, or pundit about this antitrust action, and anyone who has hosted or observed public discourse on the subject must now wonder: Were the views expressed independent and sincere, or were they purchased by an unseen hand, smothering the American marketplace of ideas?

As is detailed below, Microsoft's efforts to subvert democratic institutions such as political campaigns and debates, party organizations, news outlets, think tanks and government offices have been so vast as to be a new phenomenon, unenvisioned and unaddressed by existing political mechanisms intended to check the influence of special interests. Limited campaign contributions can serve the purpose of encouraging, facilitating, extending and opening political discussion. But political money in such vast amounts is a substitute for politics, not a means of undertaking political action.

While the modern-day political pressure brought to bear by Microsoft in the last decade may not be precisely the same as that undertaken by ITT in the 70's, it is no less objectionable to the Court's charge of acting on behalf of the "public interest."

8. Based on my review of the public record and the declaration provided by Dr. Stiglitz, it is apparent that the Department of Justice undertook a major "change in policy" at a critical moment this past fall. My belief – again based largely on Dr. Stiglitz' analysis and substantiated by a wide array of antitrust experts and scholars – is that the Proposed Final Judgment cannot be reconciled with the government's extensive court victory. The public record suggests a Microsoft strategy that appears to defeats in the legal process, but which focuses on winning an acceptable outcome through the political process. It appears to be working. Indeed, if it weren't working, such vast expenditures might give rise to a shareholder suit for breach of fiduciary duty. If Microsoft's money has had the desired effect of inducing the U.S. government to throw in the towel on the biggest antitrust suit in history, such a suit could be easily defended. But to argue that Microsoft had no such intent is tantamount to suggesting that its corporate spending it in the control of squandering fools.

9. I have also reviewed Microsoft's lobbying disclosures filed before the court as part of the Tunney Act. Again, while I am not a lawyer, my review of public documents, press reports and the plain language of the statute leads me to believe that disclosures made to the court can not possibly be reconciled with Microsoft's lobbying activities surrounding both this case and this settlement.

10. Various press reports indicate that Microsoft is trying to convince the court and the public that the litigating states have been "put up to this" (i.e. continuing to litigate through the remedy phase) by Microsoft's competitors, and therefore cannot be acting in the public interest. My review of public documents suggests this theory is backwards and should be particularly alarming to the Court. The far more likely scenario, into which the Court must inquire, is whether the Department of Justice has executed Administration policy in response to the unprecedented campaign to influence the new Administration's antitrust policy generally, and as antitrust policy applies to the high-technology sector and Microsoft, in particular.

11. In fact, with the benefit of hindsight, various Justice Department actions make perfect sense in the context of my research. The Department went to great lengths to create the appearance they were going to be "tough" with Microsoft, beginning with enlisting President Bush's renowned litigator, Phillip Beck. What actually occurred, however, is they systematically appear to have given away their hard-fought court victory. First, the Department unilaterally abandoned its pursuit of structural relief, and informed the court it would not seek a review of the Sherman Act Section 1 tying claim on remand. Then the Department suggested it would base its remedy on the interim conduct remedies ordered by Judge Jackson. Then the Department began speaking of the extensive litigation risk involved in pursuing a remedy based on the need for immediate relief. Finally, the Department – outside of public scrutiny – emerges with the Proposed Final Judgment, which based on Dr. Stiglitz' analysis appears to be woefully inadequate.

12. I declare to the court that where "there is smoke there is typically fire." Even if the "fire" in the context of modern day political influence peddling is very subtle, it nonetheless does not serve the public interest. My view is that Microsoft's political campaign has been so extensive the court

should take immediate notice. In modern political influence-peddling and purchasing, Microsoft has set a new bar. South Korea's spreading cash throughout Washington in the 1970s Tongsun Park scandal paled in comparison.

13. During the course of my research I was struck by the similarities between Microsoft and the current scandal involving Enron Corporation. While Enron, of course, is in an entirely different business, it seems the core issue – from a public disclosure perspective – is its campaign contributions and its ability to influence the nation's energy policy. Microsoft's campaign contributions significantly surpassed those of Enron; Microsoft was a defendant in a major governmental lawsuit; and it appears Microsoft may have successfully influenced the Administration's antitrust policy, with major implications for legal antitrust precedent.

14. My recommendation to the court is to undertake an immediate review of Microsoft's lobbying activities surrounding this settlement, with particular attention to meetings with the Justice Department or the White House by Microsoft or its agents. Included in this review should also be contacts made on Microsoft's behalf to the Justice Department or the White House by Members of Congress, their official staff, and campaign staff. The court should also interview Department of Justice staff who do not operate within the sphere of political appointees. And the court should interview the political appointees of the Attorney General and their staff. Moreover, the court should review any contacts or communications between the Republican National Committee, the National Republican Senatorial Committee, the Republican Congressional Campaign Committee, and the White House or the Justice Department. Lastly, the court should review any contacts or communications between Microsoft and the settling states. Anything less would clearly not vindicate the public interest.

## II. REVIEW OF PUBLIC RECORD

15. Since May 1998, Microsoft has fought strenuously in the courtroom to defend its "freedom to innovate" and to continue with business as usual. In fact, plugging in "Microsoft + trial" into the Google search engine produces more than 697,000 article hits. When "Microsoft + politics" is entered into the search engine, Google produced nearly 448,000 articles and links. But as hard as it fought inside the courtroom, Microsoft fought far harder – often secretly – outside the courtroom to influence the outcome of the trial. In a campaign unprecedented in its size, scope, and cost, Microsoft used campaign contributions, phony front groups, intensive lobbying, biased polling, and other creative, if not possibly unethical, pressure and public relations tactics to escape from the trial with its monopoly intact. According to media accounts, experts, and my own research, Microsoft spent tens of millions of dollars to attempt to create an aura outside the courtroom of what it could not prove inside – innocence. According to *BusinessWeek* Magazine: "Even seasoned Washington hands say they have never seen anything quite as flamboyant as the Microsoft effort."[3]

16. In late 2001, when the Department of Justice and a group of state Attorneys General agreed to the currently proposed settlement, it appeared as if Microsoft's efforts were successful. Fortunately, two obstacles stand in the way of Microsoft and the continued monopolization of the

[3] BusinessWeek, May 15, 2000, Carney

software industry: the remaining state Attorneys General who are continuing to litigate for a more effective remedy and the Tunney Act, which – among other things – requires Microsoft to divulge all of its dealings with the Administration and Congress in conjunction with the antitrust trial.

### *A. Campaign Contributions*

17. In 1995, before the United States Department of Justice and state Attorneys General from 19 states and the District of Columbia brought an antitrust case against it, Microsoft had virtually no presence in Washington, D.C. The company had only one lobbyist working out of a Chevy Chase, Maryland sales office and had contributed less than $50,000 in the previous election cycle.[4] Its lobbyist, Jack Krumholtz, had no secretary and its PAC was financed by only $16,000. In those days, the Microsoft lobbying operation was affectionately referred to in press reports as "Jack and his Jeep."

18. However, since the beginning of the antitrust case against Microsoft, the company has become a major political contributor and was the fifth largest during the 2000 election cycle[5], alongside the giants of the tobacco, telecommunications, pharmaceuticals and insurance industries. Microsoft's political contributions to elected leaders in a position to help the software giant in this election cycle when the trial was at its peak, was greater than all previous, cumulative campaign contributions. In the history of American PACs, only three companies that have raised at least $50K in one election cycle have increased receipts by 500% in the next. In 1984-86, Drexel Burnham Lambert, the corrupt and now-defunct securities brokerage, increased its receipts from just under $67,000 to more than $446,000, a 567% jump. In that same cycle, AT&T, facing antitrust divestiture, increased its PAC receipts by 745%, from $215,000 to $1.8 million.

In the history of corporate PACs, only 68 have increased their spending by half in one election cycle after reaching a level of a quarter of a million dollars. Only 15 have doubled their spending in one election cycle after reaching that level. Only one -- Microsoft -- has approached tripling its spending after reaching that threshold. Microsoft increased its spending almost fivefold, from $267,000 to more than $1.2 million, between the 1997-98 and 1999-2000 election cycles. (Table 5.)

20. Every year, Microsoft tops itself. The company's political giving in the 2000 cycle – the time leading up to its day of judgment in federal court – *was again more than it contributed in all previous cycles combined.* Campaign money to candidates and political parties in just one state was greater than Microsoft's contributions from 1990 through 1996 to every state and federal candidate combined. (Note that the government first levied antitrust charges against Microsoft in 1995.)

Except for Microsoft, no corporate PAC sponsor in American history has increased its PAC receipts by an order of magnitude, starting from a base of $50,000 or more. Since 1986, the only such firm that has increased its PAC receipts by as much as 500% in one election cycle is

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[4] "The Microsoft Playbook" Common Cause

[5] San Francisco Chronicle, July 1, 2001, Wildermuth

Microsoft. Receipts for Microsoft's PAC rose a record-setting 903%, from $59,790 in 1995-96 to just under $600,000 in 1997-98. (Table 1.)

Microsoft followed this by another jump of 165% in 1999-2000, to $1.59 million. (Table 2.) In the history of corporate PACs, only 15 have had as much as a 300% rise in receipts after achieving a base of $50,000. (That requires rising from at least $50,000 to at least $200,000.) None has ever followed such a rise with another three-digit percentage increase in receipts, except Microsoft. (That would require a subsequent rise to at least $400,000.)

21. Between 1995 and 2000, Microsoft donated more than $3.5 million to federal candidates and to the national parties, about two-thirds of which was contributed during the 2000 election cycle alone.[6] Including company and employee donations to political parties, candidates and PACs in the 2000 election cycle, Microsoft's giving (that of the company, its PAC and its employees) amounted to more than $6.1 million, far more than has been previously reported. [7] Nearly $1 million came in the 40 days immediately before the November 7th election. As most political operatives know, these late contributions often are made by donors who don't want their participation known until after the election, when financial reports for the final days of a campaign are due, and public and news media attention are no longer focused upon the election. The effect of delaying contributions until very near the election is to thwart efforts by the news media and the political opposition to make disclosures meaningful to voters before they vote.

**i. Federal Contributions**

*(a) "Soft" Money*

22. Comprising the majority of Microsoft's campaign contributions was soft money.[8] Like their overall presence in Washington, Microsoft's soft money donations grew substantially since the beginning of the antitrust trial. In fact, in the seven days preceding Judge Thomas Penfield Jackson's ruling against Microsoft, the company donated more in soft money to the national political parties than it gave to federal candidates and political parties between 1989 and 1996.

23. During the 1999-2000 election cycle, Microsoft and its executives accounted for some $2,298,551 in "soft money" contributions, according to FEC records. For context, consider that this was two-thirds more than the $1,546,055 in soft money contributed by the now-bankrupt Enron and its executives during the same period.

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[6] Common Cause

[7] Independent analysis of giving to elective office candidates and political parties and PACs federally and in all 50 states.

[8] "Soft" money is the term generally applied to unregulated, unlimited corporate and individual contributions that can not go to candidates but typically goes to political parties in support of party "efforts."

As one business commentator put it: "...there's something quite disturbing about watching the world's richest man trying to buy his way out of trouble with Uncle Sam... Gates's actions undermine the legal system itself."[9]

*(b) Political Action Committee (PAC) Money*

24. Microsoft's PAC donations also grew substantially in the years since the beginning of the antitrust trial. In 1998, the company made a concerted effort to increase the size of its PAC. Within a matter of days, the company grew its PAC from $31,000 to $326,000.[10] Employees contributed $1.6 million to Microsoft's PAC for the 2000 election cycle which allowed the PAC to contribute more than $1.2 million.
The PAC began the 2002 election cycle with an impressive $772,000 cash-on-hand – more than any other American corporate PAC.

Microsoft's unprecedented rise as a political player took its PAC from just under $60,000 in 1995-96 receipts to just under $1.6 million in 1999-2000. In the history of corporate PACs, only two have had a rise of more than 1,000% in receipts over four years (two election cycles), after attaining $50,000. Only one, Microsoft, has had an increase of more than 2,000%. From 1995-96 through 1999-2000, Microsoft's PAC increased in size by more than 2,500%. (Table 4.)

[9] BusinessWeek, April 24, 2000, France
[10] ibid.

*(c) Party Breakdown*

25. While Microsoft has donated to both national political parties, the company has tended to favor Republicans, who have been more vocal in their defense of the company. Between 1995 and 1998, 72% of Microsoft's contributions went to Republicans, while the GOP received only 55% of the company's donations during the 2000 election cycle.[11] Republicans received a total of $3.2 million, about half of which – $1.69 million – went to the national Republican Party.

26. Yet, when analyzing Microsoft's campaign contributions by donating entity, some stark disparities emerge. Virtually all of the money donated by individual Microsoft employees ($222,750) benefited Democratic 527s, groups that raise and spend money independent of political campaigns During this same period Microsoft employees gave $15,000 to Republican affiliated 527s. Democratic PACs also benefited from Microsoft's employees largesse, receiving $222,100 compared to just $42,875 for Republican PACs.

27. But Republicans enjoyed an edge in every other category; the majority of donations to leadership PACs, state parties and candidates went to the Republican Party. The following table illustrates the disparity.

| | **Republican** | **Democrat** |
|---|---|---|
| **Leadership PACs** | $162,000 | $41,500 |
| **State Parties** | $255,025 | $38,887 |
| **Candidates** | $1,053,792 | $818,951 |

**(ii) State Contributions**

28. Along with the Department of Justice, 19 states and the District of Columbia initially prosecuted Microsoft. Naturally, then, Microsoft concentrated a good deal of its campaign contributions on state races.

29. Candidates and political parties in all 50 states received contributions from Microsoft, but none more so than the company's home state of Washington, which received $830,478. Republicans received $359,000 while $458,000 went to Democrats. Nearly all of the $100,000 edge for the Democrats came from contributions to the State Democratic Party, which totaled $85,387.

30. One of the original states participating in the suit was South Carolina, whose attorney general, Charles Condon, was facing re-election in 1998. Shortly before the election, Microsoft contributed $25,000 to the South Carolina Republican Party. According to the Chairman of the South Carolina Republican Party this was the largest unsolicited donation ever received. Three weeks after he won,

[11] ibid.

Attorney General Condon withdrew from the antitrust case. Two years ago, Condon solicited and received a $3,500 donation from Microsoft.[12]

31. In California, a state represented by Attorney General Bill Lockyer, Microsoft contributed $25,000 to the 1998 election campaign for challenger Dave Stirling, a Republican; a contribution made nine days before election day. The company contributed an additional $10,000 to gubernatorial democratic candidate Gray Davis, whose opponent was among the original 19 state attorneys general to bring the antitrust suit against Microsoft.

32. Within weeks of the 2000 election, Microsoft CEO Steve Ballmer made late contributions of $50,000 each to two state Republican Parties, Michigan and Washington, where Microsoft found its defenders under fire. Then U.S. Senator Spencer Abraham, a Michigan Republican who is now Secretary of Energy, had been an outspoken supporter of Microsoft. Former U.S. Senator Slade Gorton, a Washington state Republican, who proudly called himself "the Senator from Microsoft" had even sought to cut the funding of the Justice Department's Antitrust Division while the court case was ongoing.

33. Microsoft used back channels to direct even more undisclosed soft money into the 2000 Michigan Senate race. According to *The Wall Street Journal*, Microsoft "funneled" soft money into the race by secretly making undisclosed contributions to the Michigan Chamber of Commerce to fund negative ads aimed at Abraham's opponent, now U.S. Senator Deborah Stabenow. Some close to the Chamber have estimated that the contributions, while legal and not requiring reporting, may have amounted to more than $250,000.[13] Such contributions are usually made to organizations to support the organization's activities, not political ads – which is why there is no disclosure requirement. Microsoft knew this and took advantage of the loophole in Michigan. Political operatives throughout the country reported similar occurrences in other political races considered "top targets" by both national parties, but efforts to gain access to contributor lists from some of the "independent" groups believed to be accepting the contributions have unsuccessful.

34. Significant contributions were also made in Missouri by Microsoft to help re-elect Senator John Ashcroft, the current U.S. Attorney General. Missouri was another state where independent groups without significant resources of their own suddenly were flush with money to run ads defending Ashcroft and attacking his opponent. Ashcroft, whose campaign benefited greatly from Microsoft's disclosed campaign contributions - $19,000 in reported donations – lost his election bid. He now runs the federal executive department responsible for proposing the settlement offer, and his office is now staffed with political operatives who played a role in raising the $19,000 from Microsoft, coordinating his campaign efforts with those of Microsoft in Missouri, and in one case, directing the entire Republican National Committee fundraising and political campaign operation in the 2000 election cycle.

35. Deborah Senn, the Democratic primary opponent of Washington State Senator Cantwell, received $15,000 more from Microsoft than did Cantwell who received $30,150. This total, however, dwarfs the money poured into now-former Senator Gorton's campaign – $131,160. Only

[12] USA Today, 5-30-00, Ullman, Drinkard
[13] Wall Street Journal, Oct. 16, 2000, Wilke

Democratic Congressman Jay Inslee's total of $126,850 comes close to that of former Senator Gorton. Congressman Inslee represents Microsoft's home district, and defends the company vigorously in Washington, D.C.

36. In addition to those in Washington State, candidates or parties in three other states received contributions totaling six figures. California was second at $174,900 with virtually the entire amount going to Leadership PACs – Members' PACs that contribute money to other allied candidates – and directly to Members of Congress. Texas was third at $107,250 although this amount does not include contributions to the Bush/Cheney campaign. This was an unusually large amount for the state when compared to previous giving patterns.

37. While Microsoft contributed $100,000 to the Bush/Cheney Inaugural Committee in January 2001, virtually all contributions to presidential campaigns were made prior to July 31st, with the exception of contributions to Libertarian Party candidate Harry Browne's campaign. (This is presumably because, to be eligible for federal matching funds for the primaries and federal funding for the general election, major party candidates receiving are not allowed to solicit or receive campaign contributions after they are nominated at their conventions.) Only four primary presidential candidates received contributions greater than $10,000: Bill Bradley, $33,400; George Bush, $57,300; Al Gore, $28,000, John McCain $39,448.

***Table 1. Candidates & Organizations Receiving $10,000 or more from Microsoft***

Following is a breakdown of Microsoft's contributions of more than $10,000 to candidates and organizations during the 2000 election cycle.

| | | | | |
|---|---|---|---|---|
| Abraham for Senate | $24,650.00 | | Kerrey for US Senate | $10,000.00 |
| Adam Smith for Congress | $31,750.00 | | Leadership PAC 2000 (Oxley) | $10,000.00 |
| American Success PAC (Drier) | $11,750.00 | | Majority Leader's Fund (Armey) | $11,000.00 |
| Ashcroft (combined) | $19,250.00 | | McCain 2000 | $39,448.00 |
| Bill Bradley for President | $33,400.00 | | McIntosh for Governor | $25,000.00 |
| Brian Baird for Congress | $38,400.00 | | Michigan Republican State Ctte. | $50,000.00 |
| Bush for President | $57,300.00 | | Montana Republican State Ctte. | $10,000.00 |
| Bush/Cheney Inaugural | $100,000.00 | | NDN | $38,750.00 |
| California FriendsLatino PAC | $10,000.00 | | New Majority Project | $15,000.00 |
| California Women Vote | $10,000.00 | | New York Senate 2000 | $40,000.00 |
| Cantwell 2000 | $30,150.00 | | NW Leadership PAC (Gorton) | $17,000.00 |
| Citizens for Rick Larsen | $35,600.00 | | **Republican Party** | **$1,691,090.50** |
| DASHPAC | $10,000.00 | | Republican Campaign Committee of New Mexico | $33,492.48 |
| **Democratic Party** | **$1,300,892.00** | | Republican Majority Fund (Don Nickles) | $15,000.00 |
| Democratic Party of Georgia | $20,000.00 | | Republican Party of Virginia | $12,000.00 |

| | |
|---|---|
| Dooley for Congress | $10,500.00 |
| EMILY's List | $176,600.00 |
| Ensign for Senate | $10,000.00 |
| Feinstein 2000 | $12,000.00 |
| Friends for Slade Gorton | $131,160.00 |
| Friends of Conrad Burns | $15,250.00 |
| Friends of Heidi | $16,300.00 |
| Friends of Jennifer Dunn | $14,700.00 |
| Gore for President | $28,000.00 |
| Inslee for Congress | $126,850.00 |
| Jim Davis for Congress | $17,250.00 |
| Jon Kyl for Senate | $11,000.00 |
| Kennedy for Senate | $12,000.00 |

| | |
|---|---|
| Republican Senate Council | $15,000.00 |
| Santorum 2000 | $11,000.00 |
| Senn 2000 | $45,651.00 |
| Snowe for Senate | $10,000.00 |
| TechNet | $10,000.00 |
| Utah Republican Party | $29,383.00 |
| Washington State Democratic Central Committee | $30,387.00 |
| Washington State Republican Party | $104,150.00 |
| Washington Victory Committee 1999 | $35,500.00 |
| Washington Victory Fund | $55,000.00 |
| Washington Women Vote | $11,000.00 |
| Western Republican PAC | $10,000.00 |
| Women Vote 2000 | $100,000.00 |

### *B. "Strategic" Philanthropy*

38. Microsoft has also contributed money to the causes of politicians as yet another method to use donations, political in nature, to garner support and ultimately influence the outcome of the trial.

39. According to *USA Today*, Microsoft and the philanthropic arm of its founder and chairman, the Bill and Melinda Gates Foundation, "donate millions of dollars to causes and projects that are dear to the hearts of government policymakers, such as a $50,000 gift to the Congressional Black Caucus Foundation."[14] Shortly after the donation to the CBC, according to *BusinessWeek*, Microsoft gained an unlikely ally in the Caucus chairman, Representative James E. Clyburn (D-SC), "who represents one of the least technology-rich districts in the country."[15] In addition, a timely $10 million gift to the U.S. Capitol Visitor's Center further endeared Microsoft to many Members of Congress.

40. Yet the strategic philanthropy began long before the 2000 election cycle. According to the Gates Foundation web site, there was a three-year hiatus in philanthropic giving between 1995 and 1998. Curiously, the last donation in 1995 occurred just prior to the signing of the 1995 consent decree and the first donation in 1998 occurred the day prior to the Department of Justice filing its antitrust suit against Microsoft.

### *C. Lobbying*

41. In addition to the millions Microsoft spent on campaign contributions, the company spent millions more lobbying Congress, the Administration and state officials to influence the outcome of the antitrust trial. Much like its campaign contributions, the company's lobbying presence in

[14] USA Today, May 30, 2000, Drinkard, Ullman
[15] BusinessWeek, May 15, 2000, Carney, Borrus, Greene

Washington has grown significantly in the last few years, its growth accelerating rapidly at the outset of the antitrust trial. Once just Jack Krumholtz, the company's lobbying group now employs 40 people in Redmond and Washington. The company has hired a dozen lobbying firms and counts among its consultants and lobbyists some of the most prominent figures in politics. A company with 30,000 employees, Microsoft has more lobbyists on retainer than the handful of U.S. companies with more than 300,000 employees. According to *USA Today*, "in 1996, the company spent $1.2 million on its Washington lobbying operations. [In 1999], that figure topped $4.6 million." According to *BusinessWeek* in reference to the company's political spending, "These days, Microsoft money flows like champagne at a wedding."[16] Some of the biggest names in Washington going back 30 years represent Microsoft – many are former bosses of the people they lobby. There are more than a half-dozen former Members of Congress, four former White House Chief Counsels, countless dozens of former senior aides from the Congress, Justice Department and elsewhere throughout the highest levels of government.

**i. Lobbying the Administration**

42. Since the inauguration of George W. Bush in January 2001, Microsoft has made a concerted effort to strengthen its ties to the Administration. The Administration's decision to agree to a settlement widely accepted to be ineffective calls into question the nature of such ties.

43. Prior to the announcement of the settlement, for example, it has been reported there was an inappropriate, if not illegal, discussion between a senior aide to Attorney General John Ashcroft and a lobbyist for AOL-Time Warner.

44. According to the account in the *New York Times*, the senior aide to General Ashcroft is David Israelite. Israelite was the political director of the Republican National Committee which received more than a million dollars from Microsoft during the 2000 presidential campaign. In that role, Mr. Israelite directed fundraising operations and coordinated campaign activities between entities like Microsoft and the national party apparatus. Now General Ashcroft's deputy chief of staff in the Office of the Attorney General, Mr. Israelite recused himself from the case as a result of his ownership of 100 shares of Microsoft stock.

45. *The Times* wrote, "According to the notes of a person briefed about the conversation on Oct. 9, the day it is said to have occurred, Mr. Israelite called [AOL lobbyist] Mr. [Wayne] Berman. "Are you guys behind this business of the states hiring their own lawyers in the Microsoft case?' Mr. Israelite asked Mr. Berman in the predawn conversation, according to the notes. 'Tell your clients we wouldn't be too happy about that."

46. Israelite allegedly said on that call that the Supreme Court was soon to deny Microsoft's appeal, which would prompt the Department of Justice to seek a settlement. He was reported to have complained that AOL was "radicalizing" the states.[17] While the conversation was confirmed, the participants denied the content of the conversation. Still, it was enough to provoke angry responses from the technology industry and an accusation of "inappropriate and possibly illegal"

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[16] ibid.

[17] New York Times, Nov. 2, 2001

conduct from a key House Democrat, Congressman John Conyers, Ranking Democratic Member of the House Judiciary Committee. In a letter to Attorney General Ashcroft, Rep. Conyers asked for more information about Israelite's alleged contacts with Berman, specifically asking for a list of contacts between Israelite and AOL officials. "If the allegations reported by the media are true, such active involvement by a recused public official could violate federal conflict of interest laws," Conyers wrote. [18]

**ii. Lobbying on the Campaign Trail**

47. Mirroring its political giving strategy, Microsoft's lobbying strategy has focused mainly on Republicans, while hedging its bets and simultaneously courting Democrats to a slightly lesser extent.

48. During the campaign, Microsoft Chairman Bill Gates was asked if a Republican administration would be a positive development for the company. It would "help," he said.[19] After all, before Judge Jackson ruled against Microsoft, then Governor Bush was quoted as saying that he stood "on the side of innovation, not litigation."

49. In fact, according to *Newsweek Magazine,* Bill Gates's visit to then Governor Bush in Austin was "part of a delicate political dance between the software giant and the Republican Party. ... Dollar signs in their eyes, GOP leaders covet big political contributions from Microsoft's coffers. In turn, Microsoft executives, plagued by the Clinton Justice Department's lawsuit, hope that a Republican president and Congress might shut down the efforts to punish the company."

50. A number of other Microsoft executives, lobbyists and other paid counsel lead back to the Bush camp. The company's Chief Operating Officer, Steve Ballmer, served then Governor Bush as a technology adviser. Tony Feather, former Bush political director, is a partner with a Republican consulting firm Microsoft hired to manage grassroots lobbying efforts. And Microsoft has paid lobbyist and former head of the Republican Party Haley Barbour hundreds of thousands of dollars to assist the company in Washington. The company has also hired Vin Weber, a former Republican Congressman, and Michael Deaver, the former White House chief of staff and trusted adviser credited with crafting President Ronald Reagan's image and campaign advertisements in the 1980s.

51. In addition, Microsoft retained the services of Ralph Reed's Century Strategies "for the stated purpose of improving the company's public image."[20] Reed's firm – a paid consultant to the Bush campaign -- aimed itself at mobilizing Bush supporters to express to the candidate their dissatisfaction with the antitrust trial. Once it was reported in the *New York Times*, the firm issued an apology. The Wall Street Journal later reported more on Ralph Reed's lobbying efforts on Microsoft's behalf:

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[18] The Kansas City Star, Nov. 8, 2000, Kraske
[19] Common Cause, "The Microsoft Playbook"
[20] ibid.

> **"BOUNTY PAYMENTS** are offered for pro- Microsoft letters and calls.
>
> Republican Ralph Reed 's lobbying firm coordinates a network of public-relations and lobbying partners that generates grass-roots comments for cash. Payments are for letters, calls and visits to lawmakers and policy makers. An e-mail offers sample letters opposing a Microsoft breakup.
>
> A letter to a member of Congress from a mayor or local Republican Party official is worth $200, the guidelines say. A " premier " letter or visit by a fund-raiser known to the lawmaker or a family member can be worth up to $450 apiece. An op-ed piece in local papers fetches $500."[21]

52. Microsoft was lobbying the Democratic side as well. Like its team of Republican all-stars, Microsoft's team of Democrats had very close ties to its party as well. The team included "super lobbyist" Tommy Boggs, a top Washington insider with deep Democratic ties, Tom Downey, a former Democratic Congressman with close ties to former Vice President Al Gore, and Craig Smith, former campaign manager for Gore and board member of the Microsoft front group, Americans for Technology Leadership. As a board member of the ATL, Smith wrote to the Democratic National Committee urging his fellow party members to abandon support for the antitrust case, citing that support "would make us vulnerable to attack in the general election."[22]

53. The company also hired Ginny Terzano, former Gore press secretary, and tobacco industry ad man Carter Eskew, a former Gore adviser-cum-Microsoft image consultant who helped craft the company's 1999 advertising campaign aimed at bolstering its reputation as a "good corporate citizen." Also retained by Microsoft was super-lobbyist Jack Quinn, former Chief of Staff to Vice President Al Gore and White House Counsel.

### iii. Lobbying Capitol Hill

54. But Microsoft did not focus solely on lobbying those who would soon be in control of the Department of Justice. Microsoft also waged a massive lobbying campaign aimed at Congress.

55. Alongside its Administration-oriented team, Microsoft recruited more lobbyists and consultants with ties to Members of Congress on both sides of the aisle. Republican hires included Allison McSlarrow, former deputy chief of staff to Senate Majority Leader Trent Lott, Ed Kutler, former assistant to then Speaker of the House Newt Gingrich, Mitch Bainwol, former chief of staff to the Senate Republican Caucus and the Republcian National Committee, Kerry Knott, former chief of staff to House Majority Leader Richard Armey, Ed Gillespie, former Armey and Republican National Committee communications director, and Mimi Simoneaux, former legislative director to House Commerce Committee Chairman Billy Tauzin, who was then-chairman of the House subcommittee with jurisdiction over the technology industry.

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[21] WSJ, Oct. 20, 2000

[22] Common Cause, "The Microsoft Playbook"

56. Among the Democrats lobbying on behalf of Microsoft were Jamie Houton, former associate director of the Senate Democratic Steering Committee, former Democratic Representative Vic Fazio, the third-highest ranking House Democrat, and his former top staffer Tom Jurkovich.

57. Despite Microsoft's assertion in its mere three-page Tunney Act disclosure filing, the company has incessantly used its tremendous resources to contact and influence Members of Congress. Over the course of a 16-month period beginning in 1999, Microsoft flew at least 130 Members of Congress or their staff to the company's headquarters in Redmond, Washington to lobby on a number of issues, including the antitrust case.

58. Perhaps the most egregious example of its heavy-handed largesse came in late 1999, when Microsoft lobbied Congress to cut $9 million from the budget for the Department of Justice's Antitrust Division, the very body that was leading the prosecution against Microsoft. Pilloried industries like the gun and tobacco had considered and rejected the strategy as overly bold.

59. According to the *Washington Post*, "Nonprofit organizations that receive financial support from [Microsoft] have also urged key congressional appropriators to limit spending for the division... . The non profits made their request in a letter last month after an all-expenses-paid trip to Microsoft headquarters in Redmond, Washington, where they were entertained and briefed on an array of issues facing the company." Further discussion follows in the next section entitled "Front Groups."

60. After the previously secret letters from these non-profit groups were exposed, news of the attempts received widespread bipartisan criticism from media and politicians alike. House Judiciary Committee Chairman Henry Hyde (R-IL), called the division "one of the best-run departments in the government." Senator Herb Kohl, a Democrat on the Senate Judiciary Committee's antitrust subcommittee, said "it would set [a] terrible precedent to alter the division's budget based on one case alone." "It's like the Mafia trying to defund the FBI," said a prominent member of the Washington antitrust bar.[23] According to Jan McDavid, a lawyer with the Washington firm of Hogan & Hartson and chairperson of the American Bar Association's antitrust section, the section's policy states that it "opposes the use of the congressional budget and appropriations process to intervene in or influence ongoing antitrust enforcement matters."[24] One congressional GOP staffer went as far as to say that Microsoft's lobbying had "the odor of obstruction."[25]

61. Not surprisingly, Senator Slade Gorton, a Republican from Microsoft's home state of Washington, was adamantly supportive of the idea. Between 1997 and 1999, he received more than $50,000 from Microsoft and its employees. During the 2000 election cycle, Gorton's PAC received $17,000 while the Washington State Republican Party received more than $100,000.

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[23] Reuters, Oct. 17, 1999, Lawsky
[24] ibid.
[25] WSJ, Oct. 15, 1999

### iv. Lobbying the States

62. Because 19 state attorneys general initiated the antitrust case alongside the Department of Justice, Microsoft initiated a state lobbying campaign aimed at influencing those attorneys general to back away from the case. Microsoft even hired former Iowa House Speaker Donald Avenson to lobby the state's Attorney General, who was leading the group of states prosecuting the company. While Microsoft has retained professional "grassroots consultants" and others in many states, according to published reports, it is their efforts in the 19 states with Attorneys General who brought suit against them where the real pressure has occurred. In those states they have retained former lawmakers, law partners of the Attorneys General, their predecessors in that same office, business associates, and their own trusted political consultants. Microsoft has also hired those on whom the AGs are often most politically dependent, such as union leaders and activists in states with Democratic Attorneys General, and fiscally conservative activists in state with Republican AGs.

63. Perhaps the company's most successful effort to influence the state attorneys general came in 1998, when, three days after a $25,000 contribution to the South Carolina Republican Party, the state's Attorney General, Charles Condon, announced that he would withdraw from the case.

64. Yet, a few of its grassroots efforts targeted at the states have done more harm than good. Because of the unprecedented size, scope and cost of Microsoft's campaign, a number of high profile gaffes have exhibited the true nature of Microsoft's "public support" and the depths to which the company will go to influence the outcome of the trial.

65. In August 2001, the *Los Angeles Times* reported that two letters received by the Utah Attorney General's office, one of the prosecuting states, were sent by dead men. The campaign was funded by Craig Smith's Americans for Technology Leadership. Despite its claims to represent "thousands of small and mid-sized technology companies," news reports have repeatedly characterized ATL and its counterpart, the Association for Competitive Technology (ACT) as essentially wholly-owned subsidiaries of Microsoft Corp., whose funding launched and sustains both groups.[26] Other characteristics of the letter writing campaign to the Attorneys General included similar phrases popping up again and again, invalid return addresses, and even masses of identical letters with different signatories.

66. In one news story, Jim Prendergast, director of ATL, initially admitted only to providing letter writers with "message points." "We gave them a few bullet points, but that's about the extent of it," he said. When asked why identical phrases were popping up again and again, he confessed that sometimes ATL did indeed provide whole letters for the citizens to sign and send. "We'd write the letter and then send it to them," he admitted.

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[26] "Microsoft's All-Out Counterattack." Dan Carney, with Amy Borrus. BusinessWeek May 15, 2000; "Microsoft's Lobbying Largess Pays Off; Back-Channel Effort Wins Support for Case." James V. Grimaldi. Washington Post May 17, 2000; "Microsoft leans creatively on levers of political power as breakup decision looms, 'stealth' lobbying efforts aim for survival." Jim Drinkard and Owen Ullmann. USA Today May 30, 2000

67. According to the same article, other states, like Minnesota and Iowa, were subjected to Microsoft's full-press grassroots lobbying campaign. Both states are participants in the antitrust case. In the case of Iowa, Attorney General Tom Miller received more than 50 letters in a month's time calling on him to drop the case. While none of the letters were identical, several phrases were similar. In four of the letters, for example, the following sentence appeared: "Strong competition and innovation have been the twin hallmarks of the technology industry." Three others contained this sentence: "If the future is going to be as successful as the recent past, the technology sector must remain free from excess regulation."[27]

68. Minnesota Attorney General Michael Hatch, who received 300 identical letters, characterized the campaign as "sleazy." Many of the letter writers were misled by Microsoft and one even wrote by hand to Attorney General Hatch to say so and to apologize for his previous letter. "I sure was misled," he wrote. "It's time for you to get out there and kick butt."[28]

**vi. Tying Up the Lobbyists and Lawyers**

69. A frequently employed tactic of Microsoft is to retain all major lobbying firms in key states so that its opposition cannot. Similarly, the company has hired many Washington, D.C.-based law firms with antitrust expertise to work on issues not related to the antitrust case. "They've got the whole town conflicted out," said one attorney. "They've sucked out all the oxygen."[29]

***D. Front Groups***

70. Supporting its political contributions and lobbying campaign, Microsoft undertook an aggressive public relations campaign aimed at "creating the appearance of a groundswell of public support for the company."[30]

71. In April 1998, a reporter for the *Los Angeles Times* received a package of confidential materials created by Edelman Public Relations for its client, Microsoft. Among the documents was a media relations strategy for a "multi-million dollar" campaign aimed at stemming the rash of antitrust investigations being undertaken by a number of states in conjunction with the federal government's investigation. According to the reporters, Greg Miller and Leslie Helm, "the elaborate plan ... hinges on a number of unusual – and some say unethical – tactics, including the planting of articles, letters to the editor and opinion pieces to be commissioned by Microsoft's top media handlers but presented by local firms as spontaneous testimonials."[31] While Microsoft contends that this strategy was never implemented, a number of the company's activities since the outset of the trial clearly indicate that most of the elements have been employed, at times repeatedly.

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[27] Los Angeles Times, August 23, 2001
[28] Los Angeles Times, August 23, 2001
[29] Business Week, May 15, 2000, Borrus, Carney, Greene
[30] "Trust Us, We're Experts" Sheldon Rampton and John Stauber, p. 8
[31] ibid.

72. Throughout the antitrust trial, Microsoft relied heavily on many "independent" groups to support the company and to oppose the suit publicly. Some groups they created themselves out of whole cloth during the trial. Others sullied their long, distinguished backgrounds by trading hard cash for the use of their good names. Many denied any involvement with Microsoft, claiming that their passion came from concern for the economy or "innovation" – only to later be unmasked by the news media when evidence of their financial dealings with Microsoft came to light. One account suggests Microsoft has harnessed at least 15 advocacy groups and think tanks that use Microsoft donations to spread the company's message through polls, news conferences, Web sites, letters to the editor, research papers, opinion pieces and letter-writing campaigns aimed at lawmakers.[32]

73. Groups with names like Americans for Technology Leadership and the Association for Competitive Technology had the veneer of genuine independence, but were actually founded by Microsoft, launched with Microsoft dollars, and work on few other issues than the defense of Microsoft in its antitrust trial.

74. Even well known Washington, D.C. organizations with strong ties to the Administration and to Congress were well funded by Microsoft – respected fiscally conservative groups like Grover Norquist's Americans for Tax Reform, former White House Counsel C. Boyden Grey's Citizens for a Sound Economy, the National Taxpayers Union and Citizens Against Government Waste. But upon closer scrutiny, the true ties of these groups to Microsoft became apparent. By paying for pro-Microsoft advertisements, by sponsoring publications, by donating money outright, Microsoft both ensured and devalued their support.

75. According to *BusinessWeek*, Microsoft "secretly funds those that do its public-relations work and pulls funding from those that dare question its positions."[33] On one such occasion, Microsoft pulled funding from the American Enterprise Institute once one of its fellows, Robert Bork, came out in favor of the antitrust trial even though the institute itself has no position on the trial and many of its technical and antitrust experts have expressed their opposition to the case. In another case, they quit a technology industry trade group, the Software and Information Industry Association, because a majority of its members supported the antitrust case.

**i. Independent Institute**

76. In one instance, Microsoft paid for the placement of newspaper advertisements by the California-based Independent Institute. Published in June 1999 in the *New York Times* and the *Washington Post*, the full-page ads featured a pro-Microsoft letter signed by 240 academics. Nothing in the ad's copy indicated to readers who – other than the Institute itself – was paying for the ads. Apparently, no one at the Independent Institute indicated to the letter's 240 signatories

[32] USA TODAY, "Microsoft leans creatively on levers of political power as breakup decision looms, 'stealth' lobbying efforts aim for survival" by Jim Drinkard and Owen Ullmann, May 30, 2000

[33] Business Week, May 15, 2000, Carney, Borrus, Greene

who was paying for the ad either. One signatory, Professor Simon Hakim of Temple University, stated that he would not have signed on to the advertisement had he known who was behind it.[34]

77. At a Washington, D.C. press conference unveiling the ads, Independent Institute president David Theroux answered a reporter's specific question about whether Microsoft had anything to do with the ads, including paying for them, with a resounding "no." When questioned months later by the *New York Times*, Theroux again denied that Microsoft paid for the ads. He said, instead, that the ads "were paid for out of our general funds." He also said the "implication that Microsoft had any influence is ridiculous."[35] But, according to a front-page article later written in the *New York Times*, "among the institute's internal documents is a bill from Mr. Theroux sent to John A. C. Kelly of Microsoft for the full costs of the ads, plus his travel expenses from San Francisco to Washington for the news conference, totaling $153,868.67. Included was a $5,966 bill for airline tickets for himself (Theroux) and a colleague. Unfortunately, he wrote Mr. Kelly, 'the airlines were heavily booked' and 'we had to fly first class to D.C. and business class on the return.'" Furthermore, despite additional statements from its president that it "adheres to the highest standards of independent scholarly inquiry," internal institute documents have shown that, having contributed more than $200,000, or 20% of the institute's total outside contributions, Microsoft "secretly served as the institute's largest outside benefactor [in 1999]."[36] It wasn't until September that the institute finally admitted the extent of Microsoft's support.

78. In these instances, as in others, Microsoft's behavior outside the courtroom had a direct impact on the proceedings inside the courtroom. According to the *New York Times*, the ads prompted not only more news stories but also courtroom discussion.[37] Microsoft also covered the costs of the publication of the institute's book, "Winners, Losers and Microsoft: Competition and Antitrust in High Technology," which Microsoft's economic witness in the trial then used to support his own testimony.

**ii. Biased Polling**

79. According to *BusinessWeek*, Microsoft has also commissioned polls to help foster an image of great public support for the company. At the outset of the 2000 presidential campaign, around the time of the Iowa caucus and the New Hampshire primary, Microsoft funded polls aimed at demonstrating the public's opposition to the antitrust case. Once the results were in, Microsoft distributed the results to the media in order to compel the candidates to incorporate their opposition to the case into their platform.

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[34] I am aware there have been allegations that material relating to the Independent Institute was uncovered by Investigative Group International (IGI), allegedly retained by Oracle Corporation. My understanding of the circumstances indicates that employees of IGI's were terminated as a result of their actions. I have not reviewed those allegations specifically, since the subject of my review was defendant, Microsoft Corporation. Regardless, neither the Independent Institute nor Microsoft ever denied the validity of the claims after they were exposed.

[35] Associated Press, September 18, 1999

[36] New York Times, Sept. 19, 1999

[37] New York Times, Sept. 19, 1999

80. In addition, while the state Attorneys General were working through the spring on formulating a remedy, Microsoft front group Americans for Technology Leadership conducted and issued the results of a poll, which concluded that the public wanted the Attorneys General to focus their time and energy on other issues. In this case, Microsoft failed to disclose the nature of its relationship with ATL and the source of funding for the poll.

### iii. Targeting the Antitrust Division of the Department of Justice

81. As stated above, one of Microsoft's most egregious attempts to use lobbying to influence the outcome of the antitrust trial came when the company lobbied to cut funding for the Antitrust Division of the Department of Justice. Microsoft funded a host of third parties to push forth its agenda.

82. In September 1999, the company flew representatives from about 15 major Washington, D.C.-based think tanks to Microsoft's Redmond, Washington headquarters "for three days of briefings that included tickets to a Seattle Mariners game and dinner and entertainment at Seattle's Teatro ZinZani, according to an itinerary."[38] Among the groups were Citizens for a Sound Economy, the National Taxpayers Union and Americans for Tax Reform, whose president, Grover Norquist, received $40,000 in lobbying payments from Microsoft during the second half of 1998.

83. Two days after returning from the trip, those three groups and three others secretly sent a letter to House appropriators urging that the Antitrust Division receive the lowest amount of funding proposed. In a coordinated effort, on the same day one of Microsoft's own lobbyists, Kerry Knott, met with Rep. Dan Miller of Florida to urge him to grant the Antitrust Division the lower amount of funds. That meeting prompted Rep. Miller to write to the chairman of the House Appropriations Commerce, Justice, State and Judiciary Subcommittee that "it would be a devastating blow to the high-tech industry and to our overall economy if the federal government succeeds in its efforts to regulate this industry through litigation." According to the Washington Post, "Miller said that while he objects to the funding on fiscal grounds, he had not focused on it until Knott and Citizens for a Sound Economy spokeswoman Christin Tinsworth, a former Miller staffer, made their pitch just off the House floor."[39]

84. A *Washington Post* editorial summarized the propriety of the incident this way: "[T]he fact that Microsoft has the right to lobby ... doesn't make the lobbying any less unseemly. If Microsoft has a gripe, it should make its complaint to the court hearing its case."[40]

## III. CONCLUSIONS

85. The end result of Microsoft's unprecedented political campaign seems to have been rewarded by the weak settlement presented by the Department of Justice.

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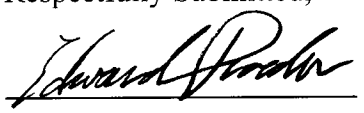
[38] The Washington Post, Oct. 15, 1999, Morgan, Eilperin
[39] ibid.
[40] Washington Post, Oct. 24, 1999

Respectfully Submitted,



Edward Roeder
January 28, 2002

## APPENDIX A: Selected Tables

Table 1. Rapid Rises in Corporate PAC Fundraising, 1979-2002
(After Raising More than $50,000)

| | | | | |
|---|---|---|---|---|
| Microsoft Corporation | | | | Formed: 1987-88 |
| Total Raised, 1995-96: | $59,750 | | | |
| Total Raised, 1997-98: | $599,568 | | | |
| Difference: | $539,818 | = | 903.46% | Rank: 1 |
| American Telephone & Telegraph Co. | | | | Formed: 1983-84 |
| Total Raised, 1983-84: | $215,423 | | | |
| Total Raised, 1985-86: | $1,820,621 | | | |
| Difference: | $1,605,198 | = | 745.14% | Rank: 2 |
| Drexel Burnham Lambert Group, Inc. | | | | Formed: 1981-82 |
| Total Raised, 1983-84: | $66,844 | | | |
| Total Raised, 1985-86: | $446,279 | | | |
| Difference: | $379,435 | = | 567.64% | Rank: 3 |
| Safari Club International | | | | Formed: 1979-80 |
| Total Raised, 1993=94: | $94,149 | | | |
| Total Raised, 1995-96: | $545,915 | | | |
| Difference: | $451,766 | = | 479.84% | Rank: 4 |
| Fluor Corporation | | | | Formed: 1979-80 |
| Total Raised, 1987-88: | $87,236 | | | |
| Total Raised, 1989-90: | $494,417 | | | |
| Difference: | $407,181 | = | 466.76% | Rank: 5 |
| Dow Chemical, USA - HQ | | | | Formed: 1979-80 |
| Total Raised, 1995-96: | $60,290 | | | |
| Total Raised, 1997-98: | $331,286 | | | |
| Difference: | $270,996 | = | 449.49% | Rank: 6 |
| Lucent Technologies, Inc. | | | | Formed: 1995-96 |
| Total Raised, 1995-96: | $87,568 | | | |
| Total Raised, 1997-98: | $464,592 | | | |
| Difference: | $377,024 | = | 430.55% | Rank: 7 |
| Nat'l Star Route Mail Contractors Ass'n | | | | Formed: 1981-82 |
| Total Raised, 1995-96: | $63,512 | | | |
| Total Raised, 1983-84: | $313,609 | | | |
| Difference: | $250,097 | = | 393.78% | Rank: 8 |

| | | | | |
|---|---|---|---|---|
| Eastern Airlines, Inc. | | | | Formed: 1979-80 |
| Total Raised, 1985-86: | $53,309 | | | |
| Total Raised, 1987-88: | $243,529 | | | |
| Difference: | $190,220 = | 356.83% | Rank: 9 | |
| Pacific Telesis Group | | | | Formed: 1979-80 |
| Total Raised, 1981-82: | $65,538 | | | |
| Total Raised, 1983-84: | $280,183 | | | |
| Difference: | $214,645 = | 327.51% | Rank: 10 | |
| Henley Group/Wheelabrator Technologies, Inc. | | | | Formed: 1979-80 |
| Total Raised, 1985-86: | $89,255 | | | |
| Total Raised, 1987-88: | $380,102 | | | |
| Difference: | $290,847 = | 325.86% | Rank: 11 | |
| Firstar (First Wisconsin) Corp. | | | | Formed: 1979-80 |
| Total Raised, 1997-98: | $113,743 | | | |
| Total Raised, 1999-00: | $480,239 | | | |
| Difference: | $366,496 = | 322.21% | Rank: 12 | |
| U.S. West, Inc. | | | | Formed: 1983-84 |
| Total Raised, 1987-88: | $123,767 | | | |
| Total Raised, 1989-90: | $521,886 | | | |
| Difference: | $398,119 = | 321.67% | Rank: 13 | |
| CSX Corp. - Jeffboat | | | | Formed: 1981-82 |
| Total Raised, 1997-98: | $74,125 | | | |
| Total Raised, 1999-00: | $303,763 | | | |
| Difference: | $229,638 = | 309.80% | Rank: 14 | |
| J. P. Morgan & Company, Inc. | | | | Formed: 1979-80 |
| Total Raised, 1983-84: | $68,569 | | | |
| Total Raised, 1985-86: | $274,515 | | | |
| Difference: | $205,946 = | 300.35% | Rank: 15 | |

Source: Computer analysis by Sunshine Press Services of Federal Election Commission data, Jan. 1, 1979 through Dec. 31, 2000.

Table 2. Continued Rises in Corporate PAC Fundraising, 1979-2002
Following Rapid Rise of More than 300% from a base of $50,000+
(Ranked by Percentage Rise in Next Election Cycle)

| | | | | |
|---|---|---|---|---|
| Microsoft Corporation | | | Formed: 1987-88 | |
| Total Raised, 1995-96: | $59,750 | | | |
| Total Raised, 1997-98: | $599,568 | | | |
| Difference: | $539,818 = | 903.46% | | |
| Next Cycle: 1999-00 | | | | |
| Total Raised: | $1,589,684 | | | |
| Difference: | $990,116 = | 165.14% | Rank: | 1 |
| J. P. Morgan & Company, Inc. | | | Formed: 1979-80 | |
| Total Raised, 1983-84: | $68,569 | | | |
| Total Raised, 1985-86: | $274,515 | | | |
| Difference: | $205,946 = | 300.35% | | |
| Next Cycle: 1987-88 | | | | |
| Total Raised: | $514,285 | | | |
| Difference: | $239,770 = | 87.34% | Rank: | 2 |
| American Telephone & Telegraph Co. | | | Formed: 1983-84 | |
| Total Raised, 1983-84: | $215,423 | | | |
| Total Raised, 1985-86: | $1,820,621 | | | |
| Difference: | $1,605,198 = | 745.14% | | |
| Next Cycle: 1987-88 | | | | |
| Total Raised: | $3,043,510 | | | |
| Difference: | $1,222,889 = | 67.17% | Rank: | 3 |
| U.S. West, Inc. | | | Formed: 1983-84 | |
| Total Raised, 1987-88: | $123,767 | | | |
| Total Raised, 1989-90: | $521,886 | | | |
| Difference: | $398,119 = | 321.67% | | |
| Next Cycle: 1991-92 | | | | |
| Total Raised: | $734,130 | | | |
| Difference: | $212,244 = | 40.67% | Rank: | 4 |
| Pacific Telesis Group | | | Formed: 1979-80 | |
| Total Raised, 1981-82: | $65,538 | | | |
| Total Raised, 1983-84: | $280,183 | | | |
| Difference: | $214,645 = | 327.51% | | |
| Next Cycle: 1985-86 | | | | |
| Total Raised: | $364,113 | | | |
| Difference: | $83,930 = | 29.96% | Rank: | 5 |

Fluor Corporation — Formed: 1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1987-88: | $87,236 | | |
| Total Raised, 1989-90: | $494,417 | | |
| Difference: | $407,181 = | 466.76% | |
| Next Cycle: 1991-92 | | | |
| Total Raised: | $610,142 | | |
| Difference: | $115,725 = | 23.41% | Rank: 6 |

Nat'l Star Route Mail Contractors Ass'n — Formed: 1981-82

| | | | |
|---|---|---|---|
| Total Raised, 1995-96: | $63,512 | | |
| Total Raised, 1983-84: | $313,609 | | |
| Difference: | $250,097 = | 393.78% | |
| Next Cycle: 1985-86 | | | |
| Total Raised: | $43,468 | | |
| Difference: | $2,269 = | 5.51% | Rank: 7 |

Firstar (First Wisconsin) Corp. — Formed: 1979-80

| | | |
|---|---|---|
| Total Raised, 1997-98: | $113,743 | |
| Total Raised, 1999-00: | $480,239 | |
| Difference: | $366,496 = | 322.21% |
| Next Cycle: (data incomplete, cycle now in progress) | | |

CSX Corp. - Jeffboat — Formed: 1981-82

| | | |
|---|---|---|
| Total Raised, 1997-98: | $74,125 | |
| Total Raised, 1999-00: | $303,763 | |
| Difference: | $229,638 = | 309.80% |
| Next Cycle: (data incomplete, cycle now in progress) | | |

Dow Chemical, USA - HQ — Formed: 1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1995-96: | $60,290 | | |
| Total Raised, 1997-98: | $331,286 | | |
| Difference: | $270,996 = | 449.49% | |
| Next Cycle: 1999-00 | | | |
| Total Raised: | $279,618 | | |
| Difference: | $-51,668 = | -15.60% | Rank: 10 |

Lucent Technologies, Inc. — Formed: 1995-96

| | | | |
|---|---|---|---|
| Total Raised, 1995-96: | $87,568 | | |
| Total Raised, 1997-98: | $464,592 | | |
| Difference: | $377,024 = | 430.55% | |
| Next Cycle: 1999-00 | | | |
| Total Raised: | $343,462 | | |
| Difference: | $-121,130 = | -26.07% | Rank: 11 |

Drexel Burnham Lambert Group, Inc. — Formed: 1981-82

| | |
|---|---|
| Total Raised, 1983-84: | $66,844 |
| Total Raised, 1985-86: | $446,279 |

Difference: $379,435 = 567.64%
Next Cycle: 1987-88
Total Raised: $310,188
Difference: $-136,091 = -30.49% Rank: 12

Safari Club International Formed: 1979-80
Total Raised, 1993=94: $94,149
Total Raised, 1995-96: $545,915
Difference: $451,766 = 479.84%
Next Cycle: 1997-98
Total Raised: $378,078
Difference: $-167,837 = -30.74% Rank: 13

Eastern Airlines, Inc. Formed: 1979-80
Total Raised, 1985-86: $53,309
Total Raised, 1987-88: $243,529
Difference: $190,220 = 356.83%
Next Cycle: 1989-90
Total Raised: $105,734
Difference: $-137,795 = -56.58% Rank: 14

Henley Group/Wheelabrator Technologies, Formed: 1979-80
Total Raised, 1985-86: $89,255
Total Raised, 1987-88: $380,102
Difference: $290,847 = 325.86%
Next Cycle: 1989-90
Total Raised: $141,072
Difference: $-239,030 = -62.89% Rank: 15

Source: Computer analysis by Sunshine Press Services of Federal Election Commission data, Jan. 1, 1979 through Dec. 31, 2000.

Table 3. Largest Cash Balances at end of 1999-2000 Election Cycle
American Corporate PACs

| Rank | PAC Sponsor | Cash on Hand |
|---|---|---|
| 1 | Microsoft Corporation | $712,874 |
| 2 | Southern Bell Telephone & Telegraph Co. | $617,922 |
| 3 | Crawford Group / Enterprise Leasing | $611,442 |
| 4 | Southwestern Bell Corporation | $550,841 |
| 5 | Chrysler / Gulfstream Aerospace Corp. | $481,068 |
| 6 | Federal Express Corporation | $424,739 |
| 7 | NationsBank | $413,663 |
| 8 | First Union Corporation | $410,242 |
| 9 | First Bank System, Inc. | $405,187 |
| 10 | Stone Container Corporation | $368,973 |
| 11 | General Electric Company | $359,469 |
| 12 | National Health Corporation | $340,205 |
| 13 | Exxon Corporation | $328,559 |
| 14 | Outback Steakhouse, Inc. | $325,977 |
| 15 | Columbia / HCA Healthcare | $284,827 |
| 16 | American Family Corporation | $283,963 |
| 17 | Cooper Industries, Inc. | $281,054 |
| 18 | Suntrust Banks, Inc. | $275,779 |
| 19 | Winn-Dixie Stores, Inc. | $273,232 |
| 20 | Jacobs Engineering Group, Inc. | $272,982 |
| 21 | Ford Motor Company | $264,914 |
| 22 | U.S. West, Inc. | $261,289 |
| 23 | Compass Bancshares, Inc. | $253,625 |

Source: Computer analysis by Sunshine Press Services of Federal Election Commission data.

Table 4. Largest Percentage Increases in Receipts Over Two Election Cycles

American Corporate PACs With More Than $50,000

| | | | |
|---|---|---|---|
| Microsoft Corporation | | | Formed:1987-88 |
| Total Raised, 1995-96: | $59,750 | | |
| Total Raised, 1999-00: | $1,589,684 | | |
| Difference: | $1,529,934 = | 2,560.56% | Rank: 1 |
| American Telephone & Telegraph Co. | | | Formed:1983-84 |
| Total Raised, 1983-84: | $215,423 | | |
| Total Raised, 1987-88: | $3,043,510 | | |
| Difference: | $2,828,087 = | 1,312.81% | Rank: 2 |
| Firstar (First Wisconsin) Corp. | | | Formed:1979-80 |
| Total Raised, 1995-96: | $59,437 | | |
| Total Raised, 1999-00: | $480,239 | | |
| Difference: | $420,802 = | 707.98% | Rank: 3 |
| J. P. Morgan & Company, Inc. | | | Formed:1979-80 |
| Total Raised, 1983-84: | $68,569 | | |
| Total Raised, 1987-88: | $514,285 | | |
| Difference: | $445,716 = | 650.03% | Rank: 4 |
| U.S. West, Inc. | | | Formed:1983-84 |
| Total Raised, 1985-86: | $69,588 | | |
| Total Raised, 1989-90: | $521,886 | | |
| Difference: | $452,298 = | 649.97% | Rank: 5 |
| Bell Atlantic Corp. | | | Formed:1983-84 |
| Total Raised, 1993=94: | $146,949 | | |
| Total Raised, 1997-98: | $1,046,617 | | |
| Difference: | $899,668 = | 612.23% | Rank: 6 |
| Fluor Corporation | | | Formed:1979-80 |
| Total Raised, 1987-88: | $87,236 | | |
| Total Raised, 1991-92: | $610,142 | | |
| Difference: | $522,906 = | 599.42% | Rank: 7 |
| Dow Chemical, USA - HQ | | | Formed:1979-80 |
| Total Raised, 1993=94: | $53,297 | | |
| Total Raised, 1997-98: | $331,286 | | |
| Difference: | $277,989 = | 521.58% | Rank: 8 |

GA Technologies, Inc. Formed:1987-88
Total Raised, 1987-88: $51,702
Total Raised, 1991-92: $320,081
Difference: $268,379 = 519.09% Rank: 9

U.S. West, Inc. Formed:1983-84
Total Raised, 1987-88: $123,767
Total Raised, 1991-92: $734,130
Difference: $610,363 = 493.15% Rank: 10

American Information Technologies Corp. Formed:1983-84
Total Raised, 1989-90: $233,266
Total Raised, 1993=94: $1,370,945
Difference: $1,137,679 = 487.72% Rank: 11

Allied-Signal, Inc. Formed:1979-80
Total Raised, 1981-82: $65,703
Total Raised, 1985-86: $384,530
Difference: $318,827 = 485.25% Rank: 12

Glaxo, Inc. Formed:1985-86
Total Raised, 1989-90: $106,192
Total Raised, 1993=94: $607,224
Difference: $501,032 = 471.82% Rank: 13

Nynex Corporation Formed:1983-84
Total Raised, 1991-92: $62,304
Total Raised, 1995-96: $346,809
Difference: $284,505 = 456.64% Rank: 14

Pacific Telesis Group Formed:1979-80
Total Raised, 1981-82: $65,538
Total Raised, 1985-86: $364,113
Difference: $298,575 = 455.58% Rank: 15

Philip Morris, Inc. Formed:1979-80
Total Raised, 1979-80: $93,291
Total Raised, 1983-84: $499,938
Difference: $406,647 = 435.89% Rank: 16

American Electric Power Company, Inc. Formed:1979-80
Total Raised, 1995-96: $106,155
Total Raised, 1999-00: $545,295
Difference: $439,140 = 413.68% Rank: 17

| | | | |
|---|---|---|---|
| Waste Management, Inc. | | | Formed:1979-80 |
| Total Raised, 1981-82: | $76,738 | | |
| Total Raised, 1985-86: | $391,637 | | |
| Difference: | $314,899 = | 410.36% | Rank: 18 |
| Cigna Corporation | | | Formed:1979-80 |
| Total Raised, 1979-80: | $56,174 | | |
| Total Raised, 1985-86: | $286,319 | | |
| Difference: | $230,145 = | 409.70% | Rank: 19 |
| LDDS Communications, Inc. | | | Formed:1987-88 |
| Total Raised, 1993=94: | $63,542 | | |
| Total Raised, 1997-98: | $323,680 | | |
| Difference: | $260,138 = | 409.40% | Rank: 20 |
| Safari Club International | | | Formed:1979-80 |
| Total Raised, 1991-92: | $107,314 | | |
| Total Raised, 1995-96: | $545,915 | | |
| Difference: | $438,601 = | 408.71% | Rank: 21 |
| Michigan Bell Telephone Company | | | Formed:1979-80 |
| Total Raised, 1983-84: | $53,326 | | |
| Total Raised, 1987-88: | $266,944 | | |
| Difference: | $213,618 = | 400.59% | Rank: 22 |
| El Paso Company | | | Formed:1979-80 |
| Total Raised, 1995-96: | $75,920 | | |
| Total Raised, 1999-00: | $379,370 | | |
| Difference: | $303,450 = | 399.70% | Rank: 23 |
| Merrill Lynch & Company, Inc. | | | Formed:1979-80 |
| Total Raised, 1979-80: | $56,895 | | |
| Total Raised, 1983-84: | $282,297 | | |
| Difference: | $225,402 = | 396.17% | Rank: 24 |
| Federal Express Corporation | | | Formed:1983-84 |
| Total Raised, 1983-84: | $230,478 | | |
| Total Raised, 1987-88: | $1,139,978 | | |
| Difference: | $909,500 = | 394.61% | Rank: 25 |
| MBNA Corporation | | | Formed:1991-92 |
| Total Raised, 1991-92: | $184,764 | | |
| Total Raised, 1995-96: | $903,599 | | |
| Difference: | $718,835 = | 389.06% | Rank: 26 |

MCI Telecommunications Corporation — Formed:1983-84

| | | | |
|---|---|---|---|
| Total Raised, 1993=94: | $104,688 | | |
| Total Raised, 1997-98: | $510,195 | | |
| Difference: | $405,507 = | 387.35% | Rank: 27 |

Smith Barney & Company — Formed:1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1995-96: | $128,843 | | |
| Total Raised, 1999-00: | $627,332 | | |
| Difference: | $498,489 = | 386.90% | Rank: 28 |

Chrysler / Gulfstream Aerospace Corp. — Formed:1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1981-82: | $77,152 | | |
| Total Raised, 1985-86: | $373,792 | | |
| Difference: | $296,640 = | 384.49% | Rank: 29 |

American Information Technologies Corp. — Formed:1983-84

| | | | |
|---|---|---|---|
| Total Raised, 1987-88: | $105,465 | | |
| Total Raised, 1991-92: | $501,210 | | |
| Difference: | $395,745 = | 375.24% | Rank: 30 |

Waste Management, Inc. — Formed:1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1983-84: | $138,076 | | |
| Total Raised, 1987-88: | $653,361 | | |
| Difference: | $515,285 = | 373.19% | Rank: 31 |

Texas Air Corp. — Formed:1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1981-82: | $53,560 | | |
| Total Raised, 1985-86: | $252,847 | | |
| Difference: | $199,287 = | 372.08% | Rank: 32 |

Federal Express Corporation — Formed:1983-84

| | | | |
|---|---|---|---|
| Total Raised, 1985-86: | $334,334 | | |
| Total Raised, 1989-90: | $1,561,744 | | |
| Difference: | $1,227,410 = | 367.12% | Rank: 33 |

Drexel Burnham Lambert Group, Inc. — Formed:1981-82

| | | | |
|---|---|---|---|
| Total Raised, 1983-84: | $66,844 | | |
| Total Raised, 1987-88: | $310,188 | | |
| Difference: | $243,344 = | 364.05% | Rank: 34 |

Dow Chemical, USA - HQ — Formed:1979-80

| | | | |
|---|---|---|---|
| Total Raised, 1995-96: | $60,290 | | |
| Total Raised, 1999-00: | $279,618 | | |
| Difference: | $219,328 = | 363.79% | Rank: 35 |

General Telephone & Electronics Corp. Formed:1979-80
Total Raised, 1987-88: $169,871
Total Raised, 1991-92: $779,782
Difference: $609,911 = 359.04% Rank: 36

NationsBank Formed:1979-80
Total Raised, 1987-88: $238,405
Total Raised, 1991-92: $1,094,012
Difference: $855,607 = 358.89% Rank: 37

CSX Corp. - Jeffboat Formed:1981-82
Total Raised, 1995-96: $66,789
Total Raised, 1999-00: $303,763
Difference: $236,974 = 354.81% Rank: 38

Sears Roebuck & Co. (Allstate) Formed:1979-80
Total Raised, 1981-82: $50,277
Total Raised, 1985-86: $223,313
Difference: $173,036 = 344.17% Rank: 39

First Union Corporation Formed:1983-84
Total Raised, 1995-96: $119,980
Total Raised, 1999-00: $525,262
Difference: $405,282 = 337.79% Rank: 40

Brown & Williamson Tobacco Corp. Formed:1979-80
Total Raised, 1991-92: $117,271
Total Raised, 1995-96: $512,562
Difference: $395,291 = 337.07% Rank: 41

Coca-Cola Enterprises, Inc. Formed:1991-92
Total Raised, 1993=94: $54,312
Total Raised, 1997-98: $232,861
Difference: $178,549 = 328.75% Rank: 42

Mutual of Omaha Insurance Company Formed:1979-80
Total Raised, 1989-90: $74,612
Total Raised, 1993=94: $319,846
Difference: $245,234 = 328.68% Rank: 43

Chase Manhattan Bank Formed:1979-80
Total Raised, 1983-84: $64,813
Total Raised, 1987-88: $274,828
Difference: $210,015 = 324.03% Rank: 44

Raytheon Company — Formed:1979-80
Total Raised, 1979-80: $54,158
Total Raised, 1983-84: $228,899
Difference: $174,741 = 322.65% Rank: 45

Manufacturers Hanover Corporation — Formed:1979-80
Total Raised, 1979-80: $69,178
Total Raised, 1983-84: $291,068
Difference: $221,890 = 320.75% Rank: 46

Tenneco, Inc. — Formed:1979-80
Total Raised, 1991-92: $208,019
Total Raised, 1995-96: $866,590
Difference: $658,571 = 316.59% Rank: 47

Loral Systems Group — Formed:1985-86
Total Raised, 1989-90: $86,215
Total Raised, 1993=94: $358,895
Difference: $272,680 = 316.28% Rank: 48

Koch Industries, Inc. — Formed:1989-90
Total Raised, 1993=94: $202,392
Total Raised, 1997-98: $831,184
Difference: $628,792 = 310.68% Rank: 49

Koch Industries, Inc. — Formed:1989-90
Total Raised, 1991-92: $104,401
Total Raised, 1995-96: $428,074
Difference: $323,673 = 310.03% Rank: 50

Bellsouth Corporation — Formed:1983-84
Total Raised, 1985-86: $70,383
Total Raised, 1989-90: $287,836
Difference: $217,453 = 308.96% Rank: 51

Rockwell International Corporation — Formed:1979-80
Total Raised, 1979-80: $123,700
Total Raised, 1983-84: $497,473
Difference: $373,773 = 302.16% Rank: 52

Safari Club International — Formed:1979-80
Total Raised, 1993=94: $94,149
Total Raised, 1997-98: $378,078
Difference: $283,929 = 301.57% Rank: 53

RJR Nabisco, Inc. Formed:1979-80
Total Raised, 1981-82: $64,199
Total Raised, 1985-86: $256,498
Difference: $192,299 = 299.54% Rank: 54

American Information Technologies Corp. Formed:1983-84
Total Raised, 1985-86: $58,487
Total Raised, 1989-90: $233,266
Difference: $174,779 = 298.83% Rank: 55

Southern Company Formed:1981-82
Total Raised, 1995-96: $125,656
Total Raised, 1999-00: $497,118
Difference: $371,462 = 295.62% Rank: 56

Lucent Technologies, Inc. Formed:1995-96
Total Raised, 1995-96: $87,568
Total Raised, 1999-00: $343,462
Difference: $255,894 = 292.22% Rank: 57

Fluor Corporation Formed:1979-80
Total Raised, 1985-86: $126,081
Total Raised, 1989-90: $494,417
Difference: $368,336 = 292.14% Rank: 58

Central & South West Services, Inc. Formed:1979-80
Total Raised, 1993=94: $57,841
Total Raised, 1997-98: $226,201
Difference: $168,360 = 291.07% Rank: 59

HSBC Americas / Marine Midland Banks Formed:1981-82
Total Raised, 1983-84: $52,071
Total Raised, 1987-88: $200,106
Difference: $148,035 = 284.29% Rank: 60

Jacobs Engineering Group, Inc. Formed:1981-82
Total Raised, 1995-96: $127,472
Total Raised, 1999-00: $488,875
Difference: $361,403 = 283.52% Rank: 61

Banc One Corporation Formed:1979-80
Total Raised, 1989-90: $270,704
Total Raised, 1993=94: $1,037,361
Difference: $766,657 = 283.21% Rank: 62

| | | | |
|---|---|---|---|
| Archer-Daniels-Midland Company | | | Formed:1979-80 |
| Total Raised, 1979-80: | $50,369 | | |
| Total Raised, 1983-84: | $192,426 | | |
| Difference: | $142,057 = | 282.03% | Rank: 63 |
| Aetna Life and Casualty Company | | | Formed:1983-84 |
| Total Raised, 1983-84: | $88,329 | | |
| Total Raised, 1987-88: | $333,008 | | |
| Difference: | $244,679 = | 277.01% | Rank: 64 |
| Outback Steakhouse, Inc. | | | Formed:1991-92 |
| Total Raised, 1993=94: | $230,022 | | |
| Total Raised, 1997-98: | $865,042 | | |
| Difference: | $635,020 = | 276.07% | Rank: 65 |
| Lockheed Corporation | | | Formed:1979-80 |
| Total Raised, 1979-80: | $136,127 | | |
| Total Raised, 1983-84: | $511,131 | | |
| Difference: | $375,004 = | 275.48% | Rank: 66 |
| Duke Power Company | | | Formed:1979-80 |
| Total Raised, 1995-96: | $69,970 | | |
| Total Raised, 1999-00: | $261,562 | | |
| Difference: | $191,592 = | 273.82% | Rank: 67 |
| TRW, Inc. | | | Formed:1979-80 |
| Total Raised, 1979-80: | $69,121 | | |
| Total Raised, 1983-84: | $256,296 | | |
| Difference: | $187,175 = | 270.79% | Rank: 68 |
| United Telecommunications, Inc. | | | Formed:1979-80 |
| Total Raised, 1983-84: | $66,922 | | |
| Total Raised, 1987-88: | $247,495 | | |
| Difference: | $180,573 = | 269.83% | Rank: 69 |
| Loral Systems Group | | | Formed:1985-86 |
| Total Raised, 1987-88: | $55,311 | | |
| Total Raised, 1991-92: | $202,887 | | |
| Difference: | $147,576 = | 266.81% | Rank: 70 |
| American General Corporation | | | Formed:1979-80 |
| Total Raised, 1995-96: | $182,254 | | |
| Total Raised, 1999-00: | $668,062 | | |
| Difference: | $485,808 = | 266.56% | Rank: 71 |

Phillips Petroleum Company — Formed:1979-80
Total Raised, 1983-84: $99,365
Total Raised, 1987-88: $364,141
Difference: $264,776 = 266.47% Rank: 72

Entergy Operations, Inc. — Formed:1989-90
Total Raised, 1993=94: $64,650
Total Raised, 1997-98: $236,109
Difference: $171,459 = 265.21% Rank: 73

American Information Technologies Corporation — Formed:1979-80
Total Raised, 1983-84: $68,916
Total Raised, 1987-88: $249,574
Difference: $180,658 = 262.14% Rank: 74

Sea-Land Corporation — Formed:1979-80
Total Raised, 1987-88: $52,291
Total Raised, 1991-92: $189,284
Difference: $136,993 = 261.98% Rank: 75

First City Bancorporation of Texas, Inc. — Formed:1979-80
Total Raised, 1979-80: $85,372
Total Raised, 1983-84: $307,649
Difference: $222,277 = 260.36% Rank: 76

Banc One Corporation — Formed:1979-80
Total Raised, 1987-88: $173,949
Total Raised, 1991-92: $622,458
Difference: $448,509 = 257.84% Rank: 77

El Paso Company — Formed:1979-80
Total Raised, 1993=94: $74,169
Total Raised, 1997-98: $264,338
Difference: $190,169 = 256.40% Rank: 78

Dow Chemical, USA — Formed:1979-80
Total Raised, 1985-86: $77,017
Total Raised, 1989-90: $274,424
Difference: $197,407 = 256.32% Rank: 79

Timken Company — Formed:1995-96
Total Raised, 1995-96: $79,717
Total Raised, 1999-00: $277,044
Difference: $197,327 = 247.53% Rank: 80

Southern Bell Telephone & Telegraph Co. Formed:1979-80
Total Raised, 1981-82: $54,650
Total Raised, 1985-86: $189,822
Difference: $135,172 = 247.34% Rank: 81

National City Corporation Formed:1981-82
Total Raised, 1983-84: $59,921
Total Raised, 1987-88: $207,361
Difference: $147,440 = 246.06% Rank: 82

Wal-Mart Stores, Inc. Formed:1979-80
Total Raised, 1989-90: $56,535
Total Raised, 1993=94: $195,579
Difference: $139,044 = 245.94% Rank: 83

Eastern Airlines, Inc. Formed:1979-80
Total Raised, 1983-84: $70,676
Total Raised, 1987-88: $243,529
Difference: $172,853 = 244.57% Rank: 84

Heublein, Inc. Formed:1979-80
Total Raised, 1985-86: $52,292
Total Raised, 1989-90: $178,944
Difference: $126,652 = 242.20% Rank: 85

Salomon Brothers, Inc. Formed:1981-82
Total Raised, 1981-82: $106,250
Total Raised, 1985-86: $363,500
Difference: $257,250 = 242.12% Rank: 86

First Bank System, Inc. Formed:1979-80
Total Raised, 1995-96: $85,349
Total Raised, 1999-00: $290,311
Difference: $204,962 = 240.15% Rank: 87

Goodyear Tire & Rubber Company Formed:1979-80
Total Raised, 1993=94: $54,504
Total Raised, 1997-98: $185,093
Difference: $130,589 = 239.60% Rank: 88

North Carolina National Bank Corp. Formed:1979-80
Total Raised, 1979-80: $79,627
Total Raised, 1983-84: $269,718
Difference: $190,091 = 238.73% Rank: 89

Caterpillar Tractor Company Formed:1981-82
Total Raised, 1985-86: $65,232
Total Raised, 1989-90: $219,844
Difference: $154,612 = 237.02% Rank: 90

Lehman Brothers Kuhn Loec, Inc. Formed:1979-80
Total Raised, 1979-80: $51,400
Total Raised, 1983-84: $171,973
Difference: $120,573 = 234.58% Rank: 91

Northrop Corporation Formed:1979-80
Total Raised, 1979-80: $86,250
Total Raised, 1983-84: $288,361
Difference: $202,111 = 234.33% Rank: 92

GMC Electronic Data Systems Corporation Formed:1979-80
Total Raised, 1987-88: $116,315
Total Raised, 1991-92: $388,257
Difference: $271,942 = 233.80% Rank: 93

Textron, Inc. Formed:1979-80
Total Raised, 1981-82: $116,552
Total Raised, 1985-86: $388,852
Difference: $272,300 = 233.63% Rank: 94

Southern Bell Telephone & Telegraph Co. Formed:1979-80
Total Raised, 1987-88: $203,554
Total Raised, 1991-92: $678,024
Difference: $474,470 = 233.09% Rank: 95

United Parcel Service of America, Inc. Formed:1979-80
Total Raised, 1983-84: $272,659
Total Raised, 1987-88: $905,482
Difference: $632,823 = 232.09% Rank: 96

Gun Owners of America (gun control foes) Formed:1991-92
Total Raised, 1995-96: $93,086
Total Raised, 1999-00: $309,050
Difference: $215,964 = 232.00% Rank: 97

| | | | | |
|---|---|---|---|---|
| Dun & Bradstreet Corporation | | | | Formed:1979-80 |
| Total Raised, 1981-82: | $51,577 | | | |
| Total Raised, 1985-86: | $169,954 | | | |
| Difference: | $118,377 = | 229.52% | Rank: 98 | |
| J. C. Penney Company, Inc. | | | | Formed:1979-80 |
| Total Raised, 1981-82: | $91,484 | | | |
| Total Raised, 1985-86: | $301,185 | | | |
| Difference: | $209,701 = | 229.22% | Rank: 99 | |
| United Parcel Service of America, Inc. | | | | Formed:1979-80 |
| Total Raised, 1985-86: | $567,328 | | | |
| Total Raised, 1989-90: | $1,865,785 | | | |
| Difference: | $1,298,457 = | 228.87% | Rank: 100 | |

Source: Computer analysis by Sunshine Press Services of Federal Election Commission data, Jan. 1, 1979 through Dec. 31, 2000.

Table 5. Rapid Rises in Corporate PAC Spending, 1979-2002
(After Spending More than $250,000)

| | | | | |
|---|---|---|---|---|
| Microsoft Corporation | | | | Formed: 1987-88 |
| Total Spent, 1997-98: | $267,500 | | | |
| Total Spent, 1999-00: | $1,221,730 | | | |
| Difference: | $954,230 | = | 356.72% | Rank: 1 |
| Federal Express Corporation | | | | Formed: 1983-84 |
| Total Spent, 1985-86: | $392,441 | | | |
| Total Spent, 1987-88: | $1,093,998 | | | |
| Difference: | $701,557 | = | 178.77% | Rank: 2 |
| Compass Bancshares, Inc. | | | | Formed: 1983-84 |
| Total Spent, 1991-92: | $363,617 | | | |
| Total Spent, 1993=94: | $974,893 | | | |
| Difference: | $611,276 | = | 168.11% | Rank: 3 |
| Metropolitan Life Insurance Company | | | | Formed: 1979-80 |
| Total Spent, 1997-98: | $310,633 | | | |
| Total Spent, 1999-00: | $815,624 | | | |
| Difference: | $504,991 | = | 162.57% | Rank: 4 |
| Bell Atlantic Corp. | | | | Formed: 1983-84 |
| Total Spent, 1995-96: | $388,073 | | | |
| Total Spent, 1997-98: | $1,006,783 | | | |
| Difference: | $618,710 | = | 159.43% | Rank: 5 |
| Planned Parenthood Action Fund, Inc. | | | | Formed: 1995-96 |
| Total Spent, 1997-98: | $359,408 | | | |
| Total Spent, 1999-00: | $914,501 | | | |
| Difference: | $555,093 | = | 154.45% | Rank: 6 |
| RJR Nabisco, Inc. | | | | Formed: 1979-80 |
| Total Spent, 1987-88: | $348,897 | | | |
| Total Spent, 1989-90: | $872,626 | | | |
| Difference: | $523,729 | = | 150.11% | Rank: 7 |
| Southern Bell Telephone & Telegraph Co. | | | | Formed: 1979-80 |
| Total Spent, 1989-90: | $265,096 | | | |
| Total Spent, 1991-92: | $650,905 | | | |
| Difference: | $385,809 | = | 145.54% | Rank: 8 |

American Information Technologies Corp. Formed: 1983-84
Total Spent, 1991-92: $518,442
Total Spent, 1993=94: $1,207,881
Difference: $689,439 = 132.98% Rank: 9

Tenneco, Inc. Formed: 1979-80
Total Spent, 1993=94: $380,688
Total Spent, 1995-96: $860,515
Difference: $479,827 = 126.04% Rank: 10

Banc One Corporation Formed: 1979-80
Total Spent, 1991-92: $421,467
Total Spent, 1993=94: $934,434
Difference: $512,967 = 121.71% Rank: 11

American General Corporation Formed: 1979-80
Total Spent, 1997-98: $291,488
Total Spent, 1999-00: $634,510
Difference: $343,022 = 117.68% Rank: 12

Boeing Company Formed: 1981-82
Total Spent, 1995-96: $370,105
Total Spent, 1997-98: $759,495
Difference: $389,390 = 105.21% Rank: 13

MBNA Corporation Formed: 1991-92
Total Spent, 1993=94: $403,796
Total Spent, 1995-96: $825,974
Difference: $422,178 = 104.55% Rank: 14

Compass Bancshares, Inc. Formed: 1983-84
Total Spent, 1995-96: $729,612
Total Spent, 1997-98: $1,468,094
Difference: $738,482 = 101.22% Rank: 15

Southtrust Corporation Formed: 1979-80
Total Spent, 1995-96: $266,593
Total Spent, 1997-98: $530,794
Difference: $264,201 = 99.10% Rank: 16

FirstEnergy Corp. (Ohio Edison) Formed: 1981-82
Total Spent, 1997-98: $253,675
Total Spent, 1999-00: $502,890
Difference: $249,215 = 98.24% Rank: 17

Koch Industries, Inc. Formed: 1989-90

| | | | | |
|---|---|---|---|---|
| Total Spent, 1995-96: | $428,664 | | | |
| Total Spent, 1997-98: | $807,318 | | | |
| Difference: | $378,654 | = | 88.33% | Rank: 18 |

Northrop Corporation Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1993=94: | $422,969 | | | |
| Total Spent, 1995-96: | $794,880 | | | |
| Difference: | $371,911 | = | 87.93% | Rank: 19 |

J. P. Morgan & Company, Inc. Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1985-86: | $262,250 | | | |
| Total Spent, 1987-88: | $492,681 | | | |
| Difference: | $230,431 | = | 87.87% | Rank: 20 |

Philip Morris, Inc. Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1983-84: | $403,699 | | | |
| Total Spent, 1985-86: | $754,949 | | | |
| Difference: | $351,250 | = | 87.01% | Rank: 21 |

Eli Lilly & Company Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1995-96: | $375,583 | | | |
| Total Spent, 1997-98: | $700,580 | | | |
| Difference: | $324,997 | = | 86.53% | Rank: 22 |

Southwestern Bell Corporation Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1993=94: | $365,700 | | | |
| Total Spent, 1995-96: | $674,857 | | | |
| Difference: | $309,157 | = | 84.54% | Rank: 23 |

Rockwell International Corporation Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1981-82: | $266,688 | | | |
| Total Spent, 1983-84: | $490,541 | | | |
| Difference: | $223,853 | = | 83.94% | Rank: 24 |

United Parcel Service of America, Inc. Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1991-92: | $1,835,231 | | | |
| Total Spent, 1993=94: | $3,350,884 | | | |
| Difference: | $1,515,653 | = | 82.59% | Rank: 25 |

General Telephone & Electronics Corp. Formed: 1979-80

| | | | | |
|---|---|---|---|---|
| Total Spent, 1989-90: | $420,131 | | | |
| Total Spent, 1991-92: | $765,805 | | | |
| Difference: | $345,674 | = | 82.28% | Rank: 26 |

United Parcel Service of America, Inc. Formed: 1979-80
Total Spent, 1985-86: $522,514
Total Spent, 1987-88: $943,815
Difference: $421,301 = 80.63% Rank: 27

Waste Management, Inc. Formed: 1979-80
Total Spent, 1985-86: $341,975
Total Spent, 1987-88: $615,059
Difference: $273,084 = 79.85% Rank: 28

Houston Industries, Inc. Formed: 1979-80
Total Spent, 1983-84: $256,353
Total Spent, 1985-86: $460,684
Difference: $204,331 = 79.71% Rank: 29

Cigna Corporation Formed: 1979-80
Total Spent, 1997-98: $352,512
Total Spent, 1999-00: $624,736
Difference: $272,224 = 77.22% Rank: 30

United Parcel Service of America, Inc. Formed: 1979-80
Total Spent, 1987-88: $943,815
Total Spent, 1989-90: $1,658,366
Difference: $714,551 = 75.71% Rank: 31

Black America's PAC Formed: 1995-96
Total Spent, 1995-96: $1,899,486
Total Spent, 1997-98: $3,337,602
Difference: $1,438,116 = 75.71% Rank: 32

Chase Manhattan Corporation Formed: 1979-80
Total Spent, 1989-90: $274,760
Total Spent, 1991-92: $481,894
Difference: $207,134 = 75.39% Rank: 33

Barnett Banks of Florida, Inc. Formed: 1979-80
Total Spent, 1985-86: $304,230
Total Spent, 1987-88: $532,509
Difference: $228,279 = 75.04% Rank: 34

Bankamerica Corporation Formed: 1981-82
Total Spent, 1993=94: $311,633
Total Spent, 1995-96: $535,516
Difference: $223,883 = 71.84% Rank: 35

NationsBank — Formed: 1979-80
Total Spent, 1997-98: $607,578
Total Spent, 1999-00: $1,041,837
Difference: $434,259 = 71.47% Rank: 36

United Technologies Corporation — Formed: 1979-80
Total Spent, 1993=94: $263,300
Total Spent, 1995-96: $450,078
Difference: $186,778 = 70.94% Rank: 37

Southwestern Bell Corporation — Formed: 1979-80
Total Spent, 1997-98: $961,990
Total Spent, 1999-00: $1,642,657
Difference: $680,667 = 70.76% Rank: 38

Lockheed Corporation — Formed: 1979-80
Total Spent, 1991-92: $422,512
Total Spent, 1993=94: $708,346
Difference: $285,834 = 67.65% Rank: 39

Union Pacific Corporation — Formed: 1979-80
Total Spent, 1985-86: $296,938
Total Spent, 1987-88: $495,482
Difference: $198,544 = 66.86% Rank: 40

Household Finance Corporation — Formed: 1979-80
Total Spent, 1989-90: $270,795
Total Spent, 1991-92: $444,889
Difference: $174,094 = 64.29% Rank: 41

Sierra Club (environmentalist) — Formed: 1979-80
Total Spent, 1997-98: $441,208
Total Spent, 1999-00: $721,429
Difference: $280,221 = 63.51% Rank: 42

Westinghouse Electric Corp. — Formed: 1979-80
Total Spent, 1987-88: $264,890
Total Spent, 1989-90: $431,697
Difference: $166,807 = 62.97% Rank: 43

American Telephone & Telegraph Co. Formed: 1983-84
Total Spent, 1985-86: $1,744,301
Total Spent, 1987-88: $2,841,464
Difference: $1,097,163 = 62.90% Rank: 44

General Motors Corporation Formed: 1979-80
Total Spent, 1993=94: $477,782
Total Spent, 1995-96: $777,521
Difference: $299,739 = 62.74% Rank: 45

Keycorp Formed: 1979-80
Total Spent, 1995-96: $376,200
Total Spent, 1997-98: $611,975
Difference: $235,775 = 62.67% Rank: 46

Union Pacific Corporation Formed: 1979-80
Total Spent, 1989-90: $731,974
Total Spent, 1991-92: $1,188,407
Difference: $456,433 = 62.36% Rank: 47

Sierra Club (environmentalist) Formed: 1979-80
Total Spent, 1987-88: $299,891
Total Spent, 1989-90: $486,795
Difference: $186,904 = 62.32% Rank: 48

Chrysler / Gulfstream Aerospace Corp. Formed: 1979-80
Total Spent, 1993=94: $417,015
Total Spent, 1995-96: $659,369
Difference: $242,354 = 58.12% Rank: 49

Pfizer, Inc. Formed: 1979-80
Total Spent, 1997-98: $536,471
Total Spent, 1999-00: $844,132
Difference: $307,661 = 57.35% Rank: 50

Chase Manhattan Bank Formed: 1979-80
Total Spent, 1989-90: $269,299
Total Spent, 1991-92: $423,632
Difference: $154,333 = 57.31% Rank: 51

Sierra Club (environmentalist) Formed: 1979-80
Total Spent, 1993=94: $431,725
Total Spent, 1995-96: $677,883
Difference: $246,158 = 57.02% Rank: 52

| | | | | |
|---|---|---|---|---|
| Banc One Corporation | | | | Formed: 1979-80 |
| Total Spent, 1989-90: | $269,833 | | | |
| Total Spent, 1991-92: | $421,467 | | | |
| Difference: | $151,634 | = | 56.20% | Rank: 53 |
| Raytheon Company | | | | Formed: 1979-80 |
| Total Spent, 1995-96: | $385,863 | | | |
| Total Spent, 1997-98: | $601,994 | | | |
| Difference: | $216,131 | = | 56.01% | Rank: 54 |
| Eli Lilly & Company | | | | Formed: 1979-80 |
| Total Spent, 1997-98: | $700,580 | | | |
| Total Spent, 1999-00: | $1,089,599 | | | |
| Difference: | $389,019 | = | 55.53% | Rank: 55 |
| Chrysler / Gulfstream Aerospace Corp. | | | | Formed: 1979-80 |
| Total Spent, 1995-96: | $659,369 | | | |
| Total Spent, 1997-98: | $1,021,714 | | | |
| Difference: | $362,345 | = | 54.95% | Rank: 56 |
| Amsouth Bancorporation | | | | Formed: 1983-84 |
| Total Spent, 1997-98: | $304,524 | | | |
| Total Spent, 1999-00: | $470,782 | | | |
| Difference: | $166,258 | = | 54.60% | Rank: 57 |
| Glaxo, Inc. | | | | Formed: 1985-86 |
| Total Spent, 1997-98: | $716,634 | | | |
| Total Spent, 1999-00: | $1,104,801 | | | |
| Difference: | $388,167 | = | 54.17% | Rank: 58 |
| Crawford Group / Enterprise Leasing | | | | Formed: 1987-88 |
| Total Spent, 1993=94: | $253,769 | | | |
| Total Spent, 1995-96: | $391,094 | | | |
| Difference: | $137,325 | = | 54.11% | Rank: 59 |
| Associates Corp. (Ford Motor Co.) | | | | Formed: 1989-90 |
| Total Spent, 1995-96: | $342,269 | | | |
| Total Spent, 1997-98: | $526,937 | | | |
| Difference: | $184,668 | = | 53.95% | Rank: 60 |
| Morgan Stanley & Company, Inc. | | | | Formed: 1979-80 |
| Total Spent, 1985-86: | $303,919 | | | |
| Total Spent, 1987-88: | $465,992 | | | |
| Difference: | $162,073 | = | 53.33% | Rank: 61 |

| | | | | |
|---|---|---|---|---|
| Houston Industries, Inc. | | | | Formed: 1979-80 |
| Total Spent, 1995-96: | $470,646 | | | |
| Total Spent, 1997-98: | $720,544 | | | |
| Difference: | $249,898 | = | 53.10% | Rank: 62 |
| Outback Steakhouse, Inc. | | | | Formed: 1991-92 |
| Total Spent, 1997-98: | $636,741 | | | |
| Total Spent, 1999-00: | $974,275 | | | |
| Difference: | $337,534 | = | 53.01% | Rank: 63 |
| Household Finance Corporation | | | | Formed: 1979-80 |
| Total Spent, 1997-98: | $512,016 | | | |
| Total Spent, 1999-00: | $782,819 | | | |
| Difference: | $270,803 | = | 52.89% | Rank: 64 |
| General Motors Corp. / Hughes Aircraft | | | | Formed: 1979-80 |
| Total Spent, 1985-86: | $271,290 | | | |
| Total Spent, 1987-88: | $412,181 | | | |
| Difference: | $140,891 | = | 51.93% | Rank: 65 |
| American Airlines | | | | Formed: 1979-80 |
| Total Spent, 1991-92: | $282,647 | | | |
| Total Spent, 1993=94: | $426,852 | | | |
| Difference: | $144,205 | = | 51.02% | Rank: 66 |
| Cooper Industries, Inc. | | | | Formed: 1979-80 |
| Total Spent, 1989-90: | $264,213 | | | |
| Total Spent, 1991-92: | $397,960 | | | |
| Difference: | $133,747 | = | 50.62% | Rank: 67 |
| Flowers Industries, Inc. | | | | Formed: 1979-80 |
| Total Spent, 1993=94: | $254,819 | | | |
| Total Spent, 1995-96: | $383,269 | | | |
| Difference: | $128,450 | = | 50.41% | Rank: 68 |

Source: Computer analysis by Sunshine Press Services of Federal Election Commission data, Jan. 1, 1979 through Dec. 31, 2000.

## APPENDIX B: Publication List

The news organizations listed below have published news reports or commentary by Edward Roeder

### Daily Newspapers

Albuquerque Journal
Arizona Republic
Arkansas Gazette-Democrat
Atlanta Constitution *
Austin American-Statesman
Baltimore Sun *
Boston Globe *
Chicago Sun-Times *
Chicago Tribune *
Cleveland Plain Dealer
Dallas Morning News
Denver Post
Deseret News
Detroit Free Press*
Detroit News *
Florida Today
Fort Lauderdale News & Sun-Sentinel *
Greensboro News & Record *
Kansas City Star
Los Angeles Times
Louisville Courier-Journal *
Miami Herald *
Nashville Tennessean
New Orleans Times-Picayune
New York Daily News
New York Newsday
New York Times *
Orlando Sentinel *
Philadelphia Inquirer *
Portland Oregonian
Providence Journal
Richmond Times-Dispatch
Sacramento Bee *
San Jose Mercury News
Seattle Post-Intelligencer
Seattle Times *
St. Louis Post-Dispatch *
St. Petersburg Times *
Tampa Tribune
USA Today
Washington Post *
Washington Times
Articles ran on page 1 or led Sunday section

### Periodicals

American Banker *
Capital Style
Conservative Digest *
Free Inquiry *
Monthly Business Review *
Ms. *
New Republic *
New Times *
Newsweek
Playboy *
Politics Today *
Rolling Stone *
Saturday Review *
Sierra *
Space Business International *
The Nation *
Time
Village Voice *
Washington Monthly *
Washingtonian *
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